

JPRS-UMA-93-028
11 August 1993



**FOREIGN
BROADCAST
INFORMATION
SERVICE**

JPRS Report

Central Eurasia

Military Affairs

DTIC QUALITY INSPECTED 2

DISTRIBUTION STATEMENT A

**Approved for public release;
Distribution Unlimited**

19971229 052

Central Eurasia

Military Affairs

JPRS-UMA-93-028

CONTENTS

11 August 1993

CIS/RUSSIAN MILITARY ISSUES

CIS/RUSSIA ARMED FORCES

Deputy Minister Mironov Addresses Training, Morale Problems [KRASNAYA ZVEZDA 20 Jul]	1
Shortage of Junior Officers in Transbaykal MD [KRASNAYA ZVEZDA 27 Jul]	2
Emigres Said to Pose Security Problems to Units in Germany [KRASNAYA ZVEZDA 29 Jul]	2
Increasing Dissatisfaction Among MoD Personnel [KRASNAYA ZVEZDA 31 Jul]	3

CIS: POLICY

Report on Kokoshin's Briefing on Budget, 1994 Defense Orders [SEGODNYA No 32, 9 Jul]	5
Russian Atomic Energy Minister on Value of Nuclear Testing [ARMiya No 7, Jul]	6
Supsov's Tsarev on Legislative Questions Facing Military [ARMiya No 7, Jul]	10

CIS: AIR, AIR DEFENSE FORCES

New Air-to-Air Guided Missiles Described [KRYLA RODINY No 1, Jan]	14
Specifications, Performance of MI-26 Heavy Transport [KRASNAYA ZVEZDA 23 Jul]	16

CIS: NAVAL FORCES

Kapitanets on Future Russian Fleet [MORSKOY SBORNIK No 3, Mar]	17
Kolchak: 'What Sort of Fleet Does Russia Need?' [MORSKOY SBORNIK No 3, Mar]	21
February Promotions List [MORSKOY SBORNIK No 3, Mar]	25
Design 661 Nuclear Attack Submarine [MORSKOY SBORNIK No 4, Apr]	26
Radiation Danger From Komsomolets Reexamined [MORSKOY SBORNIK No 4, Apr]	28
Russian Committee on Pollution of World Ocean [MORSKOY SBORNIK No 4, Apr]	32
Questioning the Need to Salvage the KOMSOMOLETS [MORSKOY SBORNIK No 4, Apr]	33
Northern Fleet: Maintenance Problems [TRUD 15 Jun]	37

CIS: REAR SERVICES, SUPPORT ISSUES

Russian OSTO's Rescue Organization [VOYENNNYYE ZNANIYA No 1, Jan]	39
Civil Defense Agencies, Functions [VOYENNNYYE ZNANIYA No 1, Jan]	41
Chief of Central Airmobile Rescue Detachment on Structure, Duties [VOYENNNYYE ZNANIYA No 2, Feb]	44
Statute on Conducting Military Assemblies of Reservists [KRASNAYA ZVEZDA 17 Jul]	47
Directorate Chief on Progress of Housing Construction [KRASNAYA ZVEZDA 20 Jul]	52
Reasons for Ryazan Housing Shortage [KRASNAYA ZVEZDA 23 Jul]	54

STATE AND LOCAL MILITARY FORCES

INTERREGIONAL MILITARY ISSUES

Georgia to Sign Cease Fire with Abkhazia [KRASNAYA ZVEZDA 27 Jul]	56
Future of Aviation Training Regiments In Kyrgyzstan Discussed [KRASNAYA ZVEZDA 30 Jul]	56

UKRAINE

Ministry of Defense Rebuts Grachev Claim to Major Black Sea Ships [NARODNA ARMIYA 6 Jul]	57
---	----

Krivak III Frigate 'Hetman Sahaydachnyy' Commissioned, Described [NARODNA ARMIYA 6 Jul]	57
Air Forces Chief of Staff Argues for Combining Air Defense, Air Forces [GOLOS UKRAINY 8 Jul]	59
Agreement With Russia on Missile Maintenance Needed [KRASNAYA ZVEZDA 14 Jul]	60

BALTIC STATES

Debate on Lithuanian Command Restructuring [LIETUVOS RYTAS 7 Jul]	61
Progress, Development of Estonian Armed Forces [KRASNAYA ZVEZDA 13 Jul]	62

CAUCASIAN STATES

Georgian-Abkhazian Battles Around Sukhumi Detailed [KRASNAYA ZVEZDA 14 Jul]	64
---	----

CENTRAL ASIAN STATES

Kazakh Edict on Draft Appeal Board [KAZAKHSTANSKAYA PRAVDA 12 Feb]	65
New Kyrgyz Defense Chairman Affirms Cooperation with Russia [KRASNAYA ZVEZDA 30 Jul]	66
Tajik Border Reinforced, Exchange of Fire Continues [KRASNAYA ZVEZDA 23 Jul]	67

OTHER STATES, REPUBLICS

Update on Emergency Situation in North Ossetia [KRASNAYA ZVEZDA 24 Jul]	67
---	----

GENERAL ISSUES

MILITARY CONFLICT, FOREIGN MILITARY AFFAIRS

UN Security Situation in Somalia Worsens [KURANTY 13 Jul]	69
Border Guards Chief of Staff on Tajik-Afghan Border Fighting [FEDERATSIYA No 81, 22 Jul] ..	69

CIS/RUSSIA ARMED FORCES

Deputy Minister Mironov Addresses Training, Morale Problems

93UM0708A Moscow KRASNAYA ZVEZDA in Russian
20 Jul 93 pp 1, 3

[Article by Lt-Col Sergey Popov: "New Ideas and People Needed for Educational Work"]

[Text] During a gathering of the managing personnel of the Institute for Educational Work, about which the paper reported, the Deputy Minister of Defense of the Russian Federation, Col-Gen Valeriy Mironov, delivered a report "On the Morale and Psychological Status of Personnel and the Tasks of Educational Structures to Strengthen Them in the Interest of Combat Readiness and Troop Training."

Even when assessing the status of educational work in the troops very critically, one cannot help but see that at all stages of the army and navy organism, commanders, staffs, and services today acknowledge and feel the rightness of creating new educational structures. In speaking of this, Col-Gen Mironov cited examples in which the apparatus and services of these structures find their place and seek significant influence in many spheres of troop life, even those which are fraught with the most urgent problems. However in comparison with the tasks now confronting the Armed Forces, with the needs of the army and navy, and the requirements of service members, their work is still not very effective.

Why are these structures not working out? Speaking about the different reasons, Col-Gen Mironov distinguished the following factors.

First, he stressed, the new structures were created to accomplish new tasks. But the people in them remained the same, professionally trained for different working conditions and for different human material. Their accumulated knowledge no longer applies, and many, not knowing how to understand the changed situation, gladly take over uncharacteristic functions and secondary jobs, if only to avoid professional responsibility and the inevitable risk in education. Even in the work of district and navy apparatus, according to the deputy defense minister, they show the desire to serve their own leadership, to deal with social and lifestyle questions, and to arrange anniversary celebrations instead of organizing the educational process in the provinces. A characteristic example: an officer of the apparatus, a deputy commander of the Leningrad Military District, takes only one duty on himself, that of reading and analyzing the district newspaper, and in accordance with the official working plan takes a half month to prepare the topics to be addressed by the leadership.

Second, the increased difficulty of educational tasks provoked the departure of many officers from work with people. That is, the problems grow larger, and the manpower for resolving them grows ever smaller. For

this reason, the pyramid of educational work, as the deputy defense minister puts it, has begun to turn around, with its base not at the primary military outfits, but at the higher levels, where the apparatus is more numerous, the opportunities more significant, and the results more marked.

Third, in the work of the educational structures, the vagueness of the ideological reference points, without which it essentially becomes senseless and is transformed into an empty waste of spiritual energy, is a major shortcoming. And indeed, they fail to explain reasonably to the men what is wanted of them and why. However, experience shows that ideological confusion and moral devastation in the troops are growing, and the commanders, their deputies and assistants are afraid to mark out their ideological position, let alone insert it in the educational process, and it is for this reason that the not unfamiliar "spiritual vacuum" has formed. This we must fill, before others do it for us.

The speaker noted that we need not flinch from the word "ideology," because in the practical, everyday dimension this is an expression of our own interests. Our ideology is patriotism and professionalism, devotion to our constitutional and military duty, responsibility for our work, and the dignity and honor of the soldier and civilian.

Fourth, for the time being we have not yet managed to restore a uniform, readily controllable and effective system of education and training of personnel. Humanitarian training with abstract values and foggy ideals has been replaced by civics training with the status of a compulsory discipline. But even after this, it is for training the soldier to serve. Only half the job has been done for the fatherland, and the lesser half at that. The most important thing is to form a system of education which corresponds to the new image and nature of the Russian Armed Forces, one that is flexible, effective, and aimed at solving practical problems.

Fifth, the increase in educational work is restrained by the shortage of cadres (more than 40/

at the lowest level), by the shortage of professional military sociologists, psychologists, jurists, culture experts, and information officers for liaison with the public, and by the unprofessionalism of some of them.

Sixth, many opportunities of the educational structures remain unclaimed only because the commanders and staffs do not know about them, do not see their place and role in troop practice, and find it difficult to assign tasks or to organize interaction with other command and control levels. It is necessary to overcome this misunderstanding and underestimation through the training of commanders in the practice of modern educational work, and through the active participation of educational structures in the combat training process, in strengthening discipline and order and drawing together the military units.

Col-General Mironov stressed that the general conclusion is obvious: the old system of work with people, in which we still find ourselves, has exhausted itself. And although we have managed to rid ourselves of the excessive ideologization and politicization of education, and are coming to grips with the individual and his everyday life, much of the old mind-set still remains to this day. It has been found, the speaker noted, that we do not know the individual well, and are only approaching answers to questions about the factors and motives of his behavior. Understanding the person and giving useful advice to the commander is not enough, however. We must find and activate the mechanisms of influence on his mood and behavior. That is, the problem is to develop and assimilate subtle pedagogical techniques which link the influence of the educators and the personality of the soldier with combat training, combat readiness, and the whole way of life of the army and navy. For this we need science, experiment, a synthesis of practical experience, and most importantly, a constant search.

As for practical tasks in reinforcing the positive advances in the education of service members, the speaker named the following.

[We must] define the place, role and functions of educational structures in the combat training of troops and other very important spheres. Establish coordination with local organizations of authority, social associations, and the mass media in the interest of the autumn draft, conduct of military advertising, and selection of candidates for contract service. Ensure the priority of educational work as a most important condition and means of maintaining a healthy morale and psychological atmosphere in the units and in the fleets, and strengthen vertical coordination of educational structures. Constantly study the sociopolitical situation in the garrisoning regions, and take timely steps to reduce tension among service members, resolve their problems, and prevent anti-military actions and involvement of the military in political struggle. Define the place, role and tasks of specialists in the new educational services, and assure their coordination with commanders, staffs and the military procuracy to eradicate the causes of the most typical legal violations. Involve the system of civics training and information and the army mass media and cultural institutions in the struggle against shallowness, individualism, and the selfish aspirations of the service members. Take advantage of the work in preparation for the 50th Anniversary of Victory in the Great Patriotic War and the 300th Anniversary of the Russian Fleet to raise the prestige of the Armed Forces and the military service in society, strengthen the army and navy fraternity, and educate the service members in the spirit of loyalty to the oath and the Combat Banner, military honor, courage and selflessness in service to the Fatherland.

Shortage of Junior Officers in Transbaykal MD

93UM0725A Moscow KRSNAYA ZVEZDA in Russian
27 Jul 93 p 1

[Article by Nikolay Vertiy (Chita): "Shortage of Aircraft Service Personnel"]

[Text] An alarming situation has developed relative to engineer-technician personnel serving in an Air Army stationed in the Transbaykal. According to Colonel Zakhar Dmitruk, chief engineer and deputy commander of an Air Forces Engineer Service large unit, personnel strength lies at only the 50% level.

This year's plans call for the addition of 119 officers, but the number arriving in the ZabVO [Transbaykal Military District] was a mere 36. Of that number, 20 have already submitted requests for discharge, stating as their reason that aircraft service specialists receive less in privileges, compared to pilots, in the way of housing and opportunity for transfer to other districts.

Emigres Said to Pose Security Problems to Units in Germany

93UM0730A Moscow KRSNAYA ZVEZDA in Russian
29 July 93 p 2

[Article by Sergey Nashayev and Vadim Markushin, "Gentlemen of Success" in Russian Garrisons in Germany"]

[Text] For the time being they are stopped by warning shots, but it appears that real assaults are not far off.

Shots at the garrison gates in the Western Group of Forces have grown more frequent. Something which was unprecedented in past years has now, alas, become commonplace. Attempts to penetrate the protected territory of the Western Group of Forces "by hook or by crook" are a visible token of the finale of reduction of the largest military border grouping of Russia.

Naturally the unrest in the garrisons is growing. There are rumors that some "persons of Caucasian nationality" are threatening retaliation against anyone who interferes with them. Who specifically has made the threats, and who was threatened, is unknown, but rumors dictate the corresponding mood in excitable persons. And indeed there are plenty of reasons for excitement, frankly. Just recently two vehicles with uninvited guests tried to get through the gate at Wuensdorf, the headquarters of the Western Group of Forces. Not only that, but after encountering resistance the guests even attempted hand-to-hand combat with the duty personnel. Shots sobered them up.

Who in fact are these people, evidently young, as can be seen from the photo? They are our former countrymen, who by fair means and foul have penetrated the "land of miracles," Germany. There are now more and more of these emigrants in Russian military garrisons, and they are behaving provocatively. Some will stop at nothing.

Persuasion and admonitions don't help. Sometimes shots sober them up, but there is no guarantee that the Mercedes and BMWs "grazing" at the gates will not return fire. The searchers after the good life, who have said their last farewells to the Motherland, are convinced that they will not do anything "like that." They are moved by purely commercial interests: to hang onto their refuge and gain access to cheap goods. An elementary calculation compels them to take risks and dodge: there is no longer any time to build up slowly, the opportunity has to be seized right now, before the Russian garrisons go away and while the chance remains to turn a "deal" in a familiar environment. And they operate as they know how, as experience acquired in the Motherland has taught them, now with guile and deception, now high-handedly and threateningly. This ill-matched community also includes some former military personnel. They know the army procedures, know their way around, and have acquaintances, friends, and countrymen who despite all strictness, still help them to "assimilate" the intra-garrison goods markets.

The command of the Western Group of Forces and the garrison commanders are forced to take the most strict measures. The Military Commandant of the Wuensdorf garrison, Lieutenant-Colonel Valeriy Karabanov, is convinced that even the slightest indulgence in entry procedures is impermissible today. There are plenty of emergency situations even away from our grounds: they have beaten service members and members of their families, and blackmailed, deceived and extorted from them. You get all sorts of people outside the gates.

It is hard not to agree. The legal trading business of the emigrants is the market tents, where they do a retail trade in old stock accumulated from the Germans on a wholesale basis. But this is only the tip of the iceberg. Lively markets, supplemental to these, in second-hand vehicles, where five times out of ten those wanting to get a company car on the cheap are given a stolen limousine with "homemade" but quite artfully produced fake documents. In symbiosis with this "industry" is a whole army of brisk second-hand traders, ready to pay "fairly" for illegal gasoline, diesel fuel, military property, cigarettes, and vodka. Some "bite" and make deals, and criminal charges are brought against "dealers" who come to the notice of law, but the temptation to earn a large number of full-value deutschmarks is great.

The emigrant public catches onto this situation quite clearly and gradually is changing tactics, shifting from persuasion, promises and gentle provocation to open pressure, dictate, and [real] provocations. What can be done in this situation? Lieutenant-Colonel Karabanov believes that they cannot get by without making the entry procedures stricter, without tight control. Incidentally, much is already being done. Contract personnel are now working the gate, officers are now appointed as duty personnel at the gates, and they are beginning to replace the traffic control barrier with metal gates. It won't be so easy to get through. The commandant's service of the garrisons regularly conducts raids, and maintains special

files on persons who are detained and evicted from the grounds of the military units. Bear in mind that this includes hundreds rather than dozens of people. Nonetheless, the concentration of the criminal public around the garrisons continues to grow. Our troops have left the south of Germany, and now the "orphaned" commercial southerners are flocking to the units which remain for the time being in the north and central FRG.

The most difficult question in connection with the set of suddenly arising problems is coordination with the German authorities. Contacts have seemingly been smoothed out here. That same Wuensdorf commandant visits the Zossen *Landrat* practically every day for operational exchange of information and planning of joint actions etc. Much is also being done today within the military procuracy. To be frank, however, the effectiveness of legal assistance from the Germans to this point has been practically zero. The latter constantly point to the absence of provisions in federal legislation which would prescribe their behavior in the corresponding situations. As a result, violators handed over by the commandant's office to the German police turn up outside the garrison gates the very next day.

Thus the problem of emigrants in Germany (a serious and multifaceted one) also affects the Russian military units. In this process, symptoms have arisen which provoke concern not only for the stability of garrison order, but also for the lives and safety of service members and their families. In this sense the shots at the gates of the Russian garrisons is an obvious signal to those who are counting on impunity. It must be understood unequivocally. Theirs is a vain hope and fraught with the most serious consequences. Do they hear the signal?

Increasing Dissatisfaction Among MoD Personnel *93UM0738A Moscow KRASNAYA ZVEZDA in Russian* *31 Jul 93 pp 1,2*

[Article by KRASNAYA ZVEZDA Correspondent Lieutenant Colonel Ivan Ivanyuk: "Trade Unions Are Sounding the Alarm: The Rights of Workers and Employees Need Protection"]

[Text] The financial crisis which our newspaper has recently written about more than once continues to have a destructive impact on the lives of military and labor collectives. The latter—to a much greater degree because in construction organizations and at enterprises the ruble is not only the measure of labor but also a distinctive engine of production. Interruptions with financing turn out to have quite negative both social and economic consequences.

They strike first of all the lives of Armed Forces civilian personnel who have turned out to be one of the most vulnerable groups of the population under conditions of unlimited price increases and a chronic lack of money. Here are only a few examples. At the beginning of July, the electricity was turned off and five Far East Military District construction directorate enterprises, among

them the 459th Wood Working Combine and the 45th Steel-Reinforced Concrete Item Combine that are involved with accomplishing the housing program, were totally shutdown due to the lack of monetary resources. Hundreds of workers and specialists found themselves on forced leave. And they had not been paid money for two months prior to that and as of 5 July the wage debt in the construction directorate totaled 1.1 billion rubles. The debts to the tax inspection organs and to state social security that total R80 million appear to be "trivia" in this background.

Due to the lack of money, the leaves of nearly 300 workers of the aircraft repair plant in Kubinka have not been processed and the issuance of leaves had already been terminated a month ago at a number of Northern Fleet garrisons. They don't have any money to pay the bills for passes to sanatoriums and to children's health camps that were independently acquired by trade union committees

Unfortunately, the hopes of the workers and employees for improvement of their material situation with the introduction of a unified wage scale have not been justified. In a number of regions, the level of wages in budget organizations are as previously lower than in cost-accounting organizations, already not talking about commercial organizations. So, according to data of the Urals Military District trade union territorial committee, the average wage in military district budget organizations was R15,000-20,000 in May, R28,000 at the cost-accounting combine for clothing repair, and the average wage in industry throughout the oblast was R38,000. According to Federation of Trade Unions data, the minimum living wage was R14,000 in Sverdlovsk Oblast, the poverty level was R21,000, and the consumer basket has "stretched" to R60,000.

But far from all workers in the army and navy could obtain even this quite modest money in that period. If delays with wages were 5-10 days at the beginning of the year, then by summer they totaled a month or more in some places which already quite perceptibly eased the purse due to the high rates of inflation. Right now calls come into the editorial staff everyday, primarily from workers of military delivery and acceptance, military departments, and certain other organizations with the complaint that they received money for their labor the last time in the first days of June but since that time the path to the cashier's window has been forbidden to them.

According to Russian Armed Forces Workers and Employees Federation of Trade Unions data, in a number of locations—Ryazan Airborne School, Volga Rear Services School, and also at many military units and institutions of the Volga, Leningrad, Moscow, Transbaykal, and Siberian Military Districts—from December 1992 through March 1993 recalculations of wages were made not only without taking indexing into account but also in general were not paid.

It has already become customary that representatives of other sectors—miners, drivers, and lumber industry workers—are attempting to resolve their own problems using strikes and pickets under such extreme conditions. Hundreds of thousands of Ministry of Defense workers and employees do not have a moral or any other type of right to such actions, their work is frequently associated with performing combat alert duty and with other aspects of maintaining the combat readiness of the Armed Forces. But there is a limit to any long-suffering. According to Deputy Chairman N. Avramenko's statement, a trade union committee chairman, Strategic Missile Forces Leningrad Communications Hub subunit workers have warned the command authorities and trade union leaders that if wages for June were not paid in the next few days, they will be compelled to go to work at a location where the calculation is conducted based upon the results of the workday instead of service in order to feed themselves and their families. They requested that this not be considered to be an unexcused absence from work or a protest but a forced measures in order not to die from hunger.

This is already, as they say, a game without rules and this is not far from a strike. But, on the other hand, what is there left to do if conventional regulations, even those, like labor legislation, are being violated. At the beginning of the year, the General Agreement Between the Government, Employers, and Trade Unions was signed, in accordance with which the government, in particular, assumed the obligation to fully and in a timely manner finance wages of workers while considering indexing and even tied to the minimum living wage. Debates on the minimum living wage at the Russian Trilateral Commission session that occurred recently were shown in a short subject on television but the primary issue of that session, around which an argument raged until hoarseness for three hours—on the timely payment of monetary resources—also remained outside the field of view of the television commentators.

In February, the appropriate sectorial trilateral agreement was signed at the Ministry of Defense. It is noteworthy that officials were found who did not really want to place relations with workers and employees on a legal basis. As Siberian Military District Trade Union Territorial Committee Chairman M. Senotrusov reported, the Ground Forces Commander-in-Chief Directive on cooperation of commanders and superiors with trade union organs and the need to conclude collective contracts at dozens of organizations of the Chita, Irkutsk, and Ulan-Ude garrisons was pigeonholed and was not disseminated to the trade union committee which compelled the territorial committee to disseminate it through its own channels.

We need to be objective: the majority of that which is regulated by the sectorial wage agreement cannot be carried out due to the fact that right now the Ministry of Defense is very stingily financed. Furthermore, a number of issues in the sectorial agreement have been attributed to the competence of the government. By way

of illustration, civilian specialists—electronics specialists, operators—along with officers perform combat alert duty on ocean cruises, at missile control panels, and at radars. But they don't have any of the benefits whatsoever that are prescribed for servicemen—a percentage addition to the salary, additional leave or even additional food during alert duty: they feed some but not others. The government can in no way resolve the issues of compensation for the cost of meals or maintenance of children at preschool institutions... While considering the marked gap in wages of servicemen and civilian personnel, this leads to an increase of social tension at military collectives. All the more so that officers and warrant officers at certain military units are still being paid salaries, even with a delay, at a time when civilian personal are left with nothing.

"The greatest number of complaints in this regard are from the ground forces and missileers," Russian Federation Armed Forces Workers and Employees Federation of Trade Unions Council Deputy Chairman V. Volkov shared his observations. "But either all seamen or none receive money, no matter how difficult that is."

The lack of information irritates and oppresses people the most—just why aren't they being paid their money? Previously they said: we don't have cash. But when the exchange of denominations began recently, the Central Bank announced: so much money has been printed that there's enough even to supply nearby foreign countries. Where is the truth?

Many problems are arising among workers and employees who have linked their lives with the army because the very status of civilian personnel in the military department has still not been determined like it was done in the Law on the Status of Servicemen. Except for the fact that Article 13 of the Law on Defense approves their presence in the power structures. The draft of the document on the status of civilian personnel has been prepared by the Federation of Trade Unions and there is a minister of defense task to the specific executors to work that issue but they, as you can see, are so far not hurrying...

All of this is forcing Ministry of Defense workers and employees to hurry to write statements on their departure from work. Right now many quarters operations services, crews of ships of the auxiliary fleet and other subunits, on which the vital activities of major large formations directly depend, are not even one third manned. But many who would like to be released simply have nowhere to go—there are no other jobs whatsoever at a number of garrisons. Although this also does not add any work enthusiasm to them but, on the contrary, dissatisfaction, despair and irritation are building up in their souls like steam under the lid of a kettle.

We have learned that the Russian Federation Armed Forces Workers and Employees Federation of Trade Unions Council, having exhausted all methods to direct the attention of the Supreme Soviet and the government

to this intolerable situation and not having received even a single letter of response, have appealed directly to Russian President B.N. Yeltsin as the Supreme Commander-in-Chief of the Armed Forces. The trade union organizations of the services and combat arms have submitted the demands of the labor collectives for his judgment, among which are—to urgently eliminate the debt for the payment of wages with compensation for those losses that have occurred, to make a number of changes to the unified wage scale, and to ensure state regulation of prices for energy products and food necessities, everyday demand goods, and medicines.

The appeal states that the crisis state of social-labor relations in the army and navy cannot endlessly continue because all of this ultimately is causing increasing distrust in labor collectives in the current course of reform and is leading to the destabilization of the Armed Forces which is intolerable under any circumstances.

CIS: POLICY

Report on Kokoshin's Briefing on Budget, 1994 Defense Orders

93UM0712A Moscow *SEGODNYA* in Russian No 32, 9 Jul 93 p 3

[Article by Boris Aleksandrov: "The Ministry of Defense Owed A Lot but It Only Had a Little: First Deputy Minister Andrey Kokoshin's Briefing"]

[Text]

VPK [Military-Industrial Complex]

The Ministry of Defense [MoD] owed 400 billion rubles to enterprises that are fulfilling the order for the production of arms and also for the advance of construction of facilities for the Armed Forces. First Deputy Minister Andrey Kokoshin reported that at a briefing... The delay in settling with the contractors has been caused by the fact that the Ministry of Finance, citing the budget that has not been approved by parliament, has not completely transferred the resources to the MoD's account. This has given rise to a maze of problems. Strictly speaking, financially suffering enterprises cannot even file a law suit against the MoD because there isn't a law on the defense order and compensation for losses has no legal basis. Delays of payments are especially seriously affecting enterprises of the 3-4th cycle of the transformation of a product. And since these enterprises as a rule are not specialized, they can simply leave the technological chain without receiving defense money.

If previously the cooperation of head associations (there are approximately 200 of them) with subcontractors was supported by the force of the CPSU Central Committee and MoD, by lavish financing and unlimited marketable goods, now the MoD along with Roskomoboronprom [Russian Committee for the Defense Industry] has to resort to persuasion. The longer this goes on, the more

difficult this is to do. Especially in relations with construction organizations which, while operating on commercial principles, are looking for not only a well-to-do customer but also a timely payment service. Delays in payments are resulting in the fact that contractors are leaving facilities and the year's construction program is, in Andrey Kokoshin's words, "on the verge of collapse". While attempting to prevent a final collapse, the MoD insists that the Ministry of Finance pay off the debt and also additionally finance the ministry's defense needs of one trillion rubles. We need to note that Viktor Chernomyrdin's recent decision on the need for all ministries and departments to reduce budget expenditures by 20% does not extend to the Ministry of Defense. Nevertheless, the MoD has cut by approximately a factor of three the product mix for the ground forces. However, in this case, expenditures are increasing somewhat for the production of spare parts. The MoD has also pulled back and has concentrated on fulfilling the military order at a lesser number of enterprises. But even here there are limits: "It is impossible to place all of our eggs in one basket", said the MoD first deputy minister. He reported that the department is completing the development of an arms program—to provide the Armed Forces with combat equipment until the year 2000 and later. The program, in his view, is grounded and takes into account both the needs of the army and also the capabilities of the economy. Russia's financial condition and the current affiliation of defense enterprises to the various CIS states that are forming independent armed forces is restraining ambitions.

Andrey Kokoshin also informed us that the 1994 defense order is coming out. It was prepared based upon the Law on Defense and the applicable edict of President Yeltsin. The USSR defense budget was always a subject of sarcasm of Western analysts and, in recent years—of domestic experts. Real expenditures for defense have been assessed at 20-25% of GNP and in no way at 3-4% as officials stated. The Soviet ruble in the military-industrial complex was 10 times "heavier" than the dollar due to low salaries and the reduced cost of materials. Everything has been put in its place with the liberalization of prices. Construction materials have drastically increased in price and the cost of military equipment along with them. At the same time, military-industrial complex enterprises experienced a shock last year due to the government's reduction of the defense order by 67%. "You can't bet only on natural survival", noted Andrey Kokoshin. During the formation of the 1994 order, the Ministry of Defense attempted to find an optimal position: a "pendulum" of expenditures. To do that under conditions of high inflation and uncertainty of price proportions is quite difficult. Ministry experts studied the price formation structure and adjusted the calculations based on many parameters. For example, it was determined that the price for a defense product increases faster than for a civilian machine-tool product. This especially affects complex items with a large number of cycles and there where the ratio of electronics utilizing precious metals is high in designs. It is clear that

the cost of items for aviation has jumped more than equipment for the ground forces. At the same time, the drastic review of the structure of expenditures based upon the combat arms will be painfully perceived by those who have been hurt most. "Here you can't cut mechanically like a lawn", noted the MoD first deputy minister. So, the defense order for next year became the result of numerous compromises.

In this sense, it is even more complicated to formulate the arms program until the year 2000 and later. The Ministry of Defense did not have anything else at its disposal during calculations except the predicted assessment of the Ministry of the Economy for 1994-1995. Therefore, from the financial-economic point of view, the quality of the program will only be determined in the future.

Russian Atomic Energy Minister on Value of Nuclear Testing

*93UM0721A Moscow ARMIYA in Russian No 7, Jul 93
(Signed to press 12 Apr 93) pp 22-25*

[Article by Russian Federation Atomic Energy Minister, Professor V. Mikhaylov: "Russia's Nuclear Shield"]

[Text] The world in which we live is a totally militarized world. And obviously nuclear weapons will remain the guarantor of its stability for some time yet.

Under conditions of the new mutual understanding and large-scale steps in the matter of constructive cooperation in the world, a colossal military machine still exists that is a direct materialized threat to mankind. The degree and nature of external military dangers is changing with time but the state of Russia's security must adequately respond to the world's existing reality.

However, the peremptory speeches of certain public figures in the mass media with the demand on the total cessation of nuclear tests in our country form a distorted perception of the true state of affairs and prompt us to unmotivated unilateral steps in the sphere of nuclear disarmament. And the topic of the dispute, in our view, requires not so much rally fervor and "a high water of feelings" but a weighty, rational approach to the tool of global policy like nuclear weapons have been since the moment of their appearance. These considerations are dictated in no way by departmental interests but exclusively by the interests of the Homeland's security. What do I have in mind?

Today there are still many areas in the world that are characterized by an unstable political situation, much extremism, and aggressive moods, including directly at our borders. Certain "third countries" are intensively conducting work for the development of nuclear weapons. So, the nuclear potential that was developed in a difficult time for the country and its constant maintenance at a modern scientific-technical level are the guarantor of the stability of peace on our planet and, I would say, the guarantor of the success of the new

thinking in the negotiations under equal conditions on mutual reduction of the nuclear arsenals and the cessation of nuclear tests. The matter is not only in the number of missiles with nuclear warheads but in our country's scientific-technical potential that can flexibly react to the possible achievements of other countries in this sphere.

By reducing nuclear weapons, we can preserve immeasurably more resources for the needs of the national economy than under a unilateral nuclear test ban—the foundation of the country's scientific-technical and military potential—until we achieve a universal nuclear test ban. With all of the importance of implementing unilateral measures for disarmament, it is extremely important not to make that last step beyond which irreversible processes already disappear. To prevent the degradation of the unique collectives of highly-skilled professionals—this is significantly more difficult than to destroy everything. Right now it is much simpler, considering the very complex social and economic situation, to demand increasingly greater unilateral steps from our country. Was it really easier for us in the postwar years when we created the atomic industry? But today, frankly speaking, high civic courage is required in order to maintain high responsibility and patriotism and not to submit to the temptation of a momentary advantage for the collectives of workers, engineers and scientists in the resolution of the issues of the preservation of the nuclear potential at all stages of disarmament, despite the atmosphere that has been created around nuclear laboratories and test ranges in our country.

Right now the shift to defensive sufficiency is closely linked with the reorientation of all Russian military industrial potential to qualitative parameters with regard to arms based on the achievements of modern science and technology.

In recent years, the situation with the development, improvement, and maintenance of the combat capability of nuclear weapons in our country has become drastically complicated. Financing and logistics and technical support of the operations of weapons institutes has deteriorated so much that it has placed in doubt the possibility for future work on nuclear weapons in the country, including to increase their safety. The development of experimental, test and production facilities has actually ceased, resources for the replacement of obsolete equipment are practically not being allocated, and housing construction has been significantly curtailed.

So, the actual expenditures of national laboratories for NIOKR [scientific research and experimental design work] was reduced by 40% in 1991 in contrast to 1990 by reducing financing and also by increasing the prices of materials, components, and maintenance of the social sphere. The most skilled and active scientific workers, designers, and workers have been compelled to cease work on weapons themes and to leave to cooperatives or to small enterprises, while losing their scientific potential. Meanwhile, there is an urgent need to continue the

work of professionals on nuclear weapons and in high-tech conversion directions, ensuring the constancy of progress of nuclear equipment, improving our knowledge and improving our weapons in all spheres that have great significance for the defense potential for the future and to ensure the safety of nuclear weapons right now, including at the stages of their elimination.

Russia's nuclear shield—this is not only missiles but also plants for the processing of nuclear fuel, for the production of nuclear munitions, and scientific-research institutes where many thousands of people work. That entire complex is located in Russia. The primary funds of these enterprises that were created during 45 years are billions and billions of rubles. As of today, their deterioration is more than 50%. Based upon our assessments, the U.S. Department of Energy's similar complex has primary funds with a cost of more than \$15 billion with a comparatively close number of people working in it.

Information for thought. In the next 20-25 years, the United States intends to renew its nuclear weapons complex as the basis of military-strategic potential. Up to one third of the total expenditures in the modernization program will be directed to the protection of the health of workers in the sector and to protect the environment.

In 1990, we developed a concept of development and modernization of the enterprises that were involved with the development, testing and production of nuclear munitions until the year 2010. The total expenditures of capital investment in this modernization program total approximately R0.7 billion per year. In this concept under conditions of a real reduction of nuclear weapons, special attention had been devoted to the qualitative reequipping of the institutes and plants while considering the growing conversion of military production. Right now the primary funds of the enterprises do not meet contemporary technical and ecological requirements and also the new safety concepts during production, storage and transportation of nuclear materials. This 20-year program envisions including expenses: for increasing the safety of personnel, protection of the environment and burial of radioactive wastes—R3 billion; for the development of computer capabilities of the enterprises where we have a colossal lag behind the United States—R3 billion; for the renewal of experimental-diagnostic facilities—R2 billion; for conservation of existing plutonium and tritium-processing reactors—R1 billion; and, for creation of a facility for storage of nuclear fissionable materials from the disassembly and destruction of nuclear munitions—R1 billion.

Accomplishment of this program will permit us to flexibly react to trends in the world in the sphere of nuclear disarmament and will increase the technological level of conversion work.

We have ceased processing weapons-grade uranium. By the year 2000, all of the 13 industrial reactors for processing fresh plutonium will be eliminated (today four plutonium-processing reactors are operating and

only two will be operating by the 1996). However, this will not reduce our military-technical potential.

Operation of defense complex enterprises as the foundation of the material base of the Armed Forces must be defined in a sufficiently broad range of scientific research. Protection of the interests of Russia and the CIS has been called upon to become a national program of the people.

While taking this into account, the priorities are being defined for improving nuclear weapons and for supporting the scientific potential of the weapons institutes in order to exclude any political risk whatsoever for our state.

Physicists and developers have always devoted special attention to the issues of nuclear weapons safety during production, storage, and operation, during repair work, and first of all by developing those physical diagrams of the designs of nuclear weapons that would in principle exclude a nuclear detonation in any nonstandard situation.

Increasing security—as of today is a priority goal of the nuclear weapons development program. Technical achievements have permitted us to steadily implement practical steps to increase weapons safety since the time of their development.

Since the consequences of an accident or premeditated seizure of nuclear weapons is extraordinarily dangerous both in a political and in a physical context, all measures have always been undertaken for their protection from the emergence of an unsanctioned nuclear detonation or dangerous dispersal of radioactive substances.

However, how safe is safety and what kind of compromise there must be from the point of view of military specifications and a future increase of safety—these are very complex issues with regard to nuclear weapons. The problem of safety was always resolved while proceeding from the military-political doctrine. Today the world is changing and the main aspects are shifting toward safety.

The nuclear weapon itself is a complex, I would say, unique technical device in which modern electronic instruments and generators, nuclear-fissionable materials and conventional explosives are assembled. The operation of these devices has been synchronized to one-millionth of a second in time in the automatic mode based upon control commands.

We have managed to compensate for our significantly less financial capabilities compared to the United States and also for the substantial lag of our laboratory and computer facilities through the resourcefulness of our scientists and designers and, the main thing, the approximately equal number of nuclear tests with the Americans—is the only technique for obtaining experimental information on the physical processes that occur under the extreme conditions of a nuclear detonation.

Nuclear tests are an integral part of scientific-research and experimental design work. We need to note that the United States, where the Nevada Test Range is located that is under the management of the Department of Energy, spends approximately \$500 million annually on nuclear tests which is ten times higher than our expenditures.

In the USSR, underground nuclear tests were conducted at two Ministry of Defense test ranges: at Semipalatinsk Test Range in Kazakhstan and at the Northern Test Range (the island of Novaya Zemlya) in Russia.

Information for thought. We have conducted 467 nuclear weapons tests (of them, 343 have been underground) at Semipalatinsk Test Range since 1949 and 132 nuclear weapons tests (of them 42 have been underground) have been conducted at Novaya Zemlya since 1955.

The shift to underground nuclear tests was a fundamental step in the improvement of the ecological situation and in reducing the number of annual tests.

It is important that underground nuclear tests with the placement of the nuclear device at an adequate depth and with a durable and sealed drive of the device in the ground and under the appropriate meteorological conditions at the moment of the detonation and two-three days after it and with observance of many other organizational and engineering safety measures reduce ecological damage to a minimum at the test range itself and practically do not inflict damage to the residents and surrounding territory.

Strict measures were taken so that radioactive products practically did not reach the surface from the very beginning of underground tests. The technology for the retention of the radioactive components has been improved all of the time and, for example, during the time of the joint experiment with the United States at Semipalatinsk Test Range in 1998, the participants of the experiment and correspondents were already able to visit directly at the epicenter of the explosion (150 kiloton yield) 45 minutes later.

Information for thought.

The test range at Novaya Zemlya is on the map-diagram [Translator's note: map not included with this article]. Test zones: A—a series of atmospheric tests; Z—underwater; B—underground in drilled holes, maximum yield and dose in the zone—up to three milliroentgens per hour; C—36 underground tests at test ranges, the maximum yield of the dose—up to 100 microroentgens per hour; S—a series of air and altitude tests, the maximum yield of the dose—up to 50 microroentgens per hour.

On the test range's primary territory, the radioactive background is not distinguishable in the limits of fluctuation from the natural background on neighboring territories, with the exception of those local points where surface tests were conducted.

The seismic impact of powerful explosions is certainly felt in nearby populated areas and can cause definite damage. However, even here accurate objective information is needed. A seismic signal is absolutely not felt by a man outside the borders of the test range on Novaya Zemlya.

To ensure our country's adequate defense and guarantees against unanticipated political or technical events that affect the military balance, it is important not only to preserve but also to modernize individual facilities of the Northern Test Range for carrying out monitoring of tests at the location where nuclear detonations are conducted in accordance with the ratified 1974 Treaty and the 1990 Protocol to it. While considering the need to maintain the country's defensive sufficiency, we propose to conduct up to 2-4 underground nuclear weapons tests per year at this test range in subsequent years.

The problem of nuclear tests so strongly defines the scientific aspects that it is difficult not to touch upon them in a broader context.

The geographic position and geological formation of the islands of Novaya Zemlya in contrast to the area of the Semipalatinsk Test Range are such that they ensure total safety of the population of the regions that are closest to the test range's territory both from radiation and also from the seismic impact of underground nuclear detonations with a yield of up to 150 kilotons. The specific features of the geological formation of the Novaya Zemlya Archipelago, considering its aseismic nature and the absence of ground water, create conditions for the total localization of the products of the nuclear detonation in its depths.

The remoteness of the test range's test sites from the nearest cities of Amderma, Naryan-Mar, Vorkuta, Murmansk and Arkhangelsk are 250, 400, 500, 900, and 1,000 kilometers, respectively, at a time when the city of Semipalatinsk is located 90 kilometers from the Kazakhstan test range and the closest village to it—Komsomolskiy, with 10,000 residents—is 40 kilometers away, that is, they are located in the zone of heightened risk. Let's recall that although the Nevada Test Range in the United States is located 130 kilometers from the major city of Las Vegas with a population of millions during the period of summer vacations, the actual distance to the test site is nearly 200 kilometers.

Persistent demands to unilaterally cease tests have resulted in the unpredictability and instability of the situation with our nuclear tests and to a drastic reduction of the nuclear test program during the last six years which has brought the nuclear weapons complex to the point beyond which the irreversible processes of its degradation can begin. The physical processes that occur during a nuclear detonation cannot be modeled under laboratory conditions and nuclear weapons tests remain the only method for verifying their operability, reliability, and safety, and also the required condition of maintaining the scientific-technical potential of the

weapons laboratories for excluding a technological breakthrough of the other nuclear powers in this sphere of science and technology.

In this situation, while pursuing the goals and principles of the ratified Treaty on the Limitation of Underground Nuclear Weapons Tests, it is possible to restrict our underground tests to only the minimally required number. We must recall that the United States conducted nine tests, France—six, and China—two in 1990. Our country conducted one test at the Northern Test Range. In 1991, the United States conducted eight nuclear tests at the Nevada Test Range and France—six tests in the Pacific Ocean. Our test ranges were once again silent.

Today, while officially recognizing that nuclear war will result in a catastrophe, the United States imparts a great deal of significance to the improvement of its own nuclear arsenal in its new "deterrence" doctrine.

We need to bear in mind the circumstance that for now the West is not officially rejecting inflicting a nuclear first strike and is continuing to improve its nuclear forces, utilizing the advantages in technology and a priority toward the developments of nuclear combat units for SNV [strategic offensive weapons], including missile complexes with individually guided warheads with a target delivery accuracy of 100 meters and with the capability to destroy highly hardened targets.

Today one can frequently hear that those people who are defending the ideas of continuing tests receive both large salaries and substantial benefits for that. Don't believe those words! The people who say that have the life goal not of service to the Homeland but of political capital. There was always one privilege for the nuclear weapons testers—to be in the first ranks for preventing a nuclear disaster.

However, the social situation that has developed as a result of previously conducted air tests and with the continuation of underground tests requires the adoption of decisions that take into account the interests of the population. Underground tests legitimately concern the surrounding population: lands have been seized and there are plots where there is significant radioactivity under the ground. That proximity naturally creates a definite psychological burden. Therefore, the demands on compensation are legitimate: both through direct payments to the population of areas that are adjacent to the test range and especially through the development of public health, school and professional education, and the servicing spheres of these regions.

Today, there is a need for large-scale modernization of Russia's atomic energy industry (first of all, for its safety), adjustments of military doctrine in the part associated with the development, production and operation of nuclear weapons. In line—are practical steps for the reduction and scrapping of nuclear weapons. All of this entails significant expenditures and requires coordination of the efforts of major scientific and production

collectives. Only the state is capable of the resolution of tasks of that scale. And since the directive levers for controlling the economy no longer exist, in my view, the development of atomic legislation that is directed at ensuring the interests of the security of Russia and Russians and of the entire Commonwealth must become the main instrument of effective state regulation of large-scale nuclear-technical programs.

COPYRIGHT: "Armiya", 1993.

Supsov's Tsarev on Legislative Questions Facing Military

93UM0709A Moscow *ARMIIA* in Russian No 7, Jul 93 (signed to press 12 Apr 93) pp 34-38

[Interview with Aleksey Yuryevich Tsarev, chairman of the Subcommittee on the Armed Forces of the Committee for Defense and Security of the Russian Federation's Supreme Soviet, by Lieutenant-Colonel Yu. Tretyakov, *ARMIIA* correspondent, under the rubric "May I Introduce": "The Army Needs Protection Too"]

[Text] A. Tsarev, chairman of the Subcommittee on the Armed Forces of the Committee for Defense and Security of the Russian Federation's Supreme Soviet, answers questions posed by Lieutenant-Colonel Tretyakov, our correspondent.

[Tretyakov] Aleksey Yuryevich, unfortunately, judging from the editors' mail, our readers know little about your committee. Please describe it briefly.

[Tsarev] The committee was formed on 25 December 1991 out of the former Security Committee. At that time it consisted of only two deputies, who began developing "military" laws. You can understand, though, that they were simply incapable of coping with that avalanche of work which overran them. We therefore turned some of the legislative work, the social aspects, over to the Committee for the Disabled and Veterans. We regret doing so, to be sure, because the attempt to develop a single body of laws in different committees proved ineffective. Today we have six people in charge of defense.

[Tretyakov] And that is the extent of your staff?

[Tsarev] Unfortunately. Compare this with American senators, as an example, each of whom has 15 personal assistants. And each committee has a sizeable, skilled staff. We are only beginning to develop such a structure. A group of experts is assigned from the Ministry of Defense to work out every law. There is a rigid selection process. If an individual does not suit us, we tell him so openly. Those who demonstrate their worth have very good prospects in our service, however.

A decision was recently adopted to have five experts on the committee on a permanent basis. They will represent the various branches of the armed forces and will simultaneously be specialists in various areas of military

science. Naturally, there will be a very thorough check of their capabilities before they are given the assignment.

[Tretyakov] What sort of requests and problems do people bring to your committee? And is it easy in general for an ordinary mortal to gain access? I have in mind primarily officers.

[Tsarev] The telephone numbers of any committee member can be found in the Supreme Soviet's directory. They have also been published in your magazine, by the way. So it is not difficult to get through to us. On the one hand, this is a good thing. Anyone who wants to can contact us directly. On the other hand, we spend almost half of our work time handling complaints, responses and calls. For some reason people think that it is most dependable to write right off the bat to the Supreme Soviet about any issue, whether it involves protecting their rights, resolving a conflict with a superior or obtaining a legal opinion.

I came out with a legislative initiative calling for us to pass regulations specifying the procedure for handling letters and appeals from citizens. The Committee on Human Rights has not yet written them up, however, even though it has been instructed to do so by the Presidium of the Supreme Soviet. I believe that legislative proposals and complaints regarding the lower soviets and federal executive bodies should be directed to the Supreme Soviet. If a complaint is about the rayon soviet, I believe that it should be directed to the oblast committee. If it is about a commander or superior, I feel that it should be addressed to those agencies with authority to resolve the matter or to a military court. Incidentally, servicemen now have that right. Finally, people can turn to their deputies.

What are we doing at the present time? As a rule, we forward letters up the chain of command, since most of the questions addressed to us are not within the committee's jurisdiction.

[Tretyakov] The Supreme Soviet is frequently reproached for the fact that Russia is establishing its own armed forces and carrying out military organizational development in the absence of a military doctrine. By law it is precisely the parliament which approves the basic provisions. What is the cause of the holdup?

[Tsarev] According to the law the president submits the basic principles of our military doctrine to the Supreme Soviet. So the reproaches are misdirected. It is another matter that we did not specify deadlines for submitting the draft to the parliament when we passed the Law on Defense, which vests the president with this authority. And this should certainly be done.

[Tretyakov] Especially since the Supreme Soviet could no doubt speed up those writing it up....

[Tsarev] We are in contact on this matter with the president's staff. The work is not proceeding as rapidly as we would like, however. Nonetheless, it would not be

entirely fair to talk about a delay involving such an important document. So little time has elapsed since the establishment of the Russian armed forces, it is simply too early to accuse all of us of slowness.

[Tretyakov] In general, how are relations between your committee and the presidential structures which deal with defense matters developing?

[Tsarev] Normal business ties are being developed. We still have neither a substantive normative basis nor the traditions or cadres with experience on this level for that purpose, however. A polishing-up process is therefore underway. Conflicts also arise, but common interests usually take precedence over ambitions.

[Tretyakov] Some mass media try to depict your committee as a sort of military lobby in the Supreme Soviet. What do you have to say about this?

[Tsarev] The fact that most of the deputies making up the committee are military men probably gave rise to these assertions. We ourselves proposed that a provision be added to the law that servicemen elected as people's deputies not be allowed to remain in the military service during their tenure as deputies. This would relieve them of the unnecessary suspicions. Another reason for the accusations of lobbyism was the fact that both the committee and the Ministry of Defense proposed that the list of individuals entitled to deferments not be enlarged in the Law on Military Duty and Military Service. We were guided by state and not departmental interests, however. Our proposal did not pass, though. And so, if we are lobbyists, then we are poor ones.

I can add to that. At first the Ministry of Defense treated us with great caution, assuming that we were people who would strive for popularity more than for our cause. Nor will I conceal the fact that we too had the preconceived opinion that the leadership of the military department was in the hands of conservatives with no interest in seeing real changes in the army. As time passed both sides saw that for the most part there was no basis for the reciprocal suspicions.

[Tretyakov] Does this mean that you now have no major disagreements in your approaches to the military reform and other matters pertaining to the organizational development of the Russian army?

[Tsarev] Why would you ask that? There are disagreements. They are inevitable. We proposed restoring certain historical military ranks, for example, but were unable to defend our point of view. There was a long debate over the periods of military service. We adopted a compromise. We did not agree to the proposal of the Ministry of Defense that compulsory initial military service be retained, however. To be honest, though, had we wanted to, we could have convinced the deputies of its necessity. I say that with respect to your question about lobbying.

With respect to military reform, we view it basically the same way. Some steps taken by the Ministry of Defense sometimes evoke a sense of dissatisfaction, however. For example, we have great doubts about the expediency of having our troops in certain CIS countries. They are being withdrawn more slowly than they could have been, though—and not just because of the lack of housing. We are firmly convinced that we should immediately reduce the number of units and formations, because it is impossible to man them fully. But the reorganization is proceeding extremely slowly, even though the Ministry of Defense seems to agree that it is better to have one complete division than five divisions "truncated" by half or even more. Or take what is happening with the units being withdrawn from Germany and the Baltic area. The forces located in the Far East, the Transcaucasus and the Urals have an enormous shortage of personnel. They would gladly accept the "brothers-in-arms" from abroad. The gladness is not reciprocal, however. And so we have just about a quarter of the entire army serving in the Moscow Military District. This is precisely why we specified in the Law on Military Duty and Military Service that an officer refusing to serve wherever he is assigned may be discharged.

In short, there are disagreements, but they are of a practical nature. We try to resolve them with compromises and not confrontation.

[Tretyakov] In the developed nations there is rigid parliamentary control over the activities of the armed forces. Is it possible for our Supreme Soviet, and your committee specifically, to exert a greater influence upon the functioning of the army and navy?

[Tsarev] We presently lack that essential mechanism of control, because the conditions for that are not yet right. If the committee begins monitoring the activities of the armed forces and listening to reports from various officials, we will have to neglect the legislative work, and no one will do it for us.

[Tretyakov] But you can at least set up a parliamentary committee, let us say, which could go to a district and determine why a bad situation has developed there, can you not?

[Tsarev] Yes, under the constitution the committee can send any member to investigate any issue. I repeat, however, that we must first define the rules governing behavior and then hold accountable those who do not adhere to them. It is not our job to verify how orders, directives and instructions from the minister of defense are being implemented in the forces. Our job is to determine how completely these documents conform to the law. And that law has to be established.

[Tretyakov] In addition to monitoring by the parliament, the army also needs its protection....

[Tsarev] I can assure you that no other group of citizens is protected by the law today as much as military personnel. The only exception are those few who occupy

administrative positions in the higher legislative, executive or judicial bodies. Add up all that the officer receives today: pay and allowances, compensation for rations, medical benefits, free transportation, free uniforms.... The total far exceeds the average income of a doctor, an engineer, a teacher or an administrator. And the benefits specified in recent laws!

[Tretyakov] That is, you see real protection for the serviceman as lying in the passage of a package of laws guaranteeing his rights?

[Tsarev] Yes, primarily. Although.... Not just any law can reliably protect him. It could appear to be a good document but could upset some servicemen, since many of the standards set forth in it simply cannot be met for everyone. Some groups of servicemen will receive all their benefits, while the majority will have to make the rounds of various authorities with complaints that the law is not being observed. I discussed this matter in the Ministry of Defense and I could see that it does not have the answers to many questions. An officer may not be discharged unless he has an apartment, for example. Is this realistic? Unfortunately, it is not.

Take the privatization of housing. Put yourself into the place of a division commander who for several years has seen almost the entire housing pool privatized by officers discharged into the reserve. Where is he to find apartments for those who replace them?

What city or rayon can provide an officer with housing within a 3-month period? Where are local authorities going to get the money to compensate for the rental of apartments? Who will maintain the transportation lines to military posts, when the servicemen now travel for free?

[Tretyakov] Just what prevented you from making the situation more realistic?

[Tsarev] The fact of the matter is that the developer was the Committee for the Disabled and War and labor Veterans.... We proposed an alternative, which specified only those benefits which the state actually could provide today. Incidentally, it was supported by the Ministry of Defense. Unfortunately, the other committee's viewpoint won out.

That is not so serious. Even those funds which the state can allocate right now for social protection for those who are actually serving—I underscore “actually serving”—are being spent on something other than their designated purpose. Take army athletes. Why do they live at the expense of the armed forces? What do figure skaters have to do with the military service, for example? I once attended a meeting with an Olympic champion, who told the audience how he became a lieutenant. He himself laughed, and the entire audience laughed.

And so many officers are assigned to civilian ministries and departments! Many of them spend years performing jobs which have nothing to do with the military service,

while receiving all the benefits. And the appetites of some of them are growing. For example, we succeeded with great difficulty in getting the point allowing military personnel to be attached on temporary duty to the tax inspectorate deleted from the law.

The new Law on Military Duty and Military Service prohibits the spreading around of the officer corps. Military personnel can now be assigned to other ministries only as experts, consultants or advisers for periods of no more than 5 years, in accordance with limits to be set by the president. I am afraid that these limits will not be extensively publicized, however.

I also have to mention one other reason why the state is unable fully to meet its commitments to the army. It is now in vogue for a department to prepare a law “for itself,” specify a number of benefits in it and then add the annotation: “and also provide all of the benefits established for military personnel.” As a result, those to whom the benefits apply, servicemen in the army and navy, find themselves left out, although they provide a sort of “cover” for others. What budget can stand up under these conditions? I pity any government forced to deal with such a tender-hearted parliament.

A very important problem stands out here. We talk about the need to raise the prestige of military status. This will not be possible, however, if a man in uniform is going to exact fines from civilians, if a man in uniform is going to escort arrestees, if tax sanctions are imposed upon people by a man in uniform.... That is why it is called military—because it should be associated with only one thing, protecting the homeland. Other departments could have special ranks: inspector, commissar and so forth. They do not go for this, though.

[Tretyakov] Are they afraid that this will lower the status of their workers?

[Tsarev] To some extent, but it is primarily a matter of wages. It is now being proposed that officer ranks for workers be introduced in the draft Statute on Service in Tax Enforcement Agencies. I wonder why NCO ranks are not included. Because the pay would be less. OK, but then why do you insist on being provided with all the pay and allowances specified for servicemen? Why do you need a military uniform? Do your own thing. I am told honestly that the uniform will not really be worn, that the monetary compensation is what is important.

[Tretyakov] Tell me, please, how is the work on the “military package” of laws going in the parliament? Many officers have the impression that certain forces are simply blocking the process.

[Tsarev] That is an exaggeration. There are deputies whom the “military” laws do not suit, of course. They do not constitute any sort of influential group, however. Furthermore, there can be such people not just in the Supreme Soviet but also in the president's organization, the government or the Ministry of Defense.

[Tretyakov] Which of the laws in this package will be passed in the immediate future?

[Tsarev] The current agenda contains a law on alternative service (the draft has already been prepared), the Statute on the Procedure for Performing Military Service and general military regulations. Working groups which include representatives of the Ministry of Defense have already begun work on the two latter documents.

[Tretyakov] A law was recently passed under which Russia extends additional guarantees to soldiers serving in hot spots. You will agree, however, that we have a right to demand certain guarantees for Russian servicemen from the leaders of those nations in which our troops are stationed. Is the Supreme Soviet working on that?

[Tsarev] At the recent time it has ratified only one agreement governing the status of Russian servicemen in another state. This is an agreement with Armenia. We did not participate in its development, however, even though I feel that these documents should be prepared by a broad range of individuals.

[Tretyakov] Unfortunately, society is not thinking overly seriously about the fact that Russia could soon end up with no army at all. Last year only 29 percent of those subject to the draft were actually inducted. If this trend continues, according to some estimates, only 20 percent of those subject to the draftee will be inducted this year. In your opinion, can those entering the service under contract fill this gap?

[Tsarev] I have already stated that our committee was against enlarging the list of those entitled to deferments. In the overall picture, however, it is not just a matter of deferments. We could grant deferments to several other groups of the youth and still draft more people. For example, are all of our VUZs [higher educational institutions] truly operating for the good of the country? I am convinced that their numbers far exceed our real needs. Many of their graduates, including graduates of military VUZs, are working outside of their fields. For some of them studying is only a means of evading military service.

Furthermore, it is time finally to remove military units once and for all from the civilian ministries and departments, and convert the internal and civil troops to service under contract. And to force those who are supposed to be drafted to serve, of course. Probably no other nation has so many evaders of military service. And they evade it practically with impunity.

With respect to service under contract, I am confident that our country can perfectly well afford a professional army. Right now, after all, we have as many officers and warrant officers as the total number of military personnel we are supposed to have by 1995. The fact that few people are earnestly advertising and promoting service under contract is another matter. This is a

problem for the state as a whole. The Ministry of Defense cannot resolve it alone.

[Tretyakov] Another law, this one on alternative service, is close to passage. Is it not possible that with its passage, the Russian army will be left without any soldiers at all?

[Tsarev] It will be left without any soldiers not because of this law. It will end up without soldiers if they die of dystrophy, as though on a Russian island, if "dedovshchina" and criminality thrive in it. The freedom of soldiers is limited at some garrisons more than that of a person sentenced to imprisonment by a court. Is that normal? If the army is democratized, if the service becomes more attractive both materially and psychologically, more of the youth will try to serve in the military and not to perform alternative service.

[Tretyakov] I have to ask you about the fate of our officers who by force of circumstances have found themselves outside Russia's borders.

[Tsarev] After the Statute on the Procedure for Performing Military Service has been adopted, they will be able to contact the Main Directorate for the Training and Assignment of Personnel and learn the units whose commanders are prepared to sign contracts with them. I can even provide an address. It is the military unit in the city of Yasnoye, Orenburg Oblast, where I was stationed prior to being elected a people's deputy. It has many vacancies, and the commander will be glad to hear from them. There are apartments for everyone. It is not the Moscow area but the Orenburg steppe, to be sure, but it has its advantages. Unfortunately, some of our fellow countrymen want to serve in the Russian army, but not just any part of Russia suits them as a place to serve.

[Tretyakov] And how can we help those who were simply forced to take the Ukrainian or Belarusian oath but are no longer needed there?

[Tsarev] We have to pay for our mistakes, you know. If you were a unit commander, would you sign a contract with an officer who first took the oath to Russia, then Ukraine and now Russia again? There is such a thing as honor and faithfulness to one's word, after all. Some officers are destroying the proof that they took a "foreign" oath and asking to be taken back. That is not the way to do it. They should come forth and say honestly that they were in a difficult situation. Perhaps they will be believed.

[Tretyakov] One final question, Aleksey Yuryevich. How would you evaluate your committee's performance since its inception? What has it accomplished, and what gives you a sense of dissatisfaction or apprehension?

[Tsarev] It is not for us to judge what we have accomplished. And there is some dissatisfaction. There is also apprehension. How are our laws going to be received? How well do they meet the needs of the army and navy? There was little time. We were in a hurry and traveled off the beaten path. It is possible that we made some errors,

possibly serious ones. We therefore plan to get back to the "military" group of laws, in order to make any adjustments suggested by life.

[Tretyakov] Thank you for the interview.

From his biography:

Aleksey Yuryevich Tsarev was born in 1953. Now a colonel, he completed the Suvorov Military School in Kiev in 1971 and graduated from the political department at the Rostov Higher Military Command School in 1975. He occupied various positions at a missile and space range for 9 years. In 1987 he completed the Military-Political Academy imeni V.I. Lenin. He was elected a people's deputy of Russia in 1990. Since December of 1991 he has worked in the Committee on Defense and Security of the Russian Federation's Supreme Soviet. He is completing the fourth year in the correspondence division of a law institute.

He is married. His wife, Natalya Valentinovna, completed the physical education school at the Rostov Teachers' Institute. She is a master of sports in gymnastics. His daughter, Ilona, is 17 years old and studies at a teachers' school. His son, Yura, is 13 and in the 9th grade.

COPYRIGHT: "Armiya", 1993

CIS: AIR, AIR DEFENSE FORCES

New Air-to-Air Guided Missiles Described

93A50159A Moscow KRYLA RODINY in Russian
No 1, Jan 93 pp 32-33

[Article by Mikhail Levin: "Launched and Forgotten"]

[Text] The Moscow State Machine Building Design Office "Vympel" [GosMKB "Drop Message"], in association with Spetstekhnika [Special Engineering], demonstrated its newly developed air-to-air class guided missiles and presented information about their characteristics at the Mosaeroshou-92 [Moscow Air Show-92]. A comparison of the new guided missiles with their foreign analogues shows that the domestic ones have somewhat larger overall dimensions and launch masses but have a longer launch range. It is true that the advantage is not very big. Indeed, in most cases, the figures provided by design offices clearly characterize maximum unaimed fire range.

The stress on the development of medium-range missiles is noteworthy. The R-27 family is represented by a large number of different versions equipped with different homing systems. Foreign missiles, despite the large number of versions (for example, the AIM-7 Sparrow), all have the same type of homing head in all their versions.

The missiles of the last series-produced generation (R-73) and the newly developed generation (RVV-AYe)

have the following significant design innovations: combination aerogasdynamic control and latticework control surfaces providing better maneuverability properties than foreign analogues do. Let us get acquainted with these until-recently classified aircraft in greater detail.

R-27 Missile (AA-10 Alamo)

This is an aircraft-launched medium-range air-to-air class guided missile. It is used with aircraft launcher [APU] and catapult devices [AKU] against highly maneuverable aircraft, helicopters, winged missiles, and other targets. It strikes them on all approaches, day or night, under both simple and complicated weather conditions, in the presence of natural noise or jamming, and against the background of ground or water surfaces during active counteraction. It has been developed in the following versions:

—R-27AYe, which has inertial control with radar and active homing radar in the final leg of its flight. Within the bounds of its lock-on range, the homing head executes the "launched-forgotten" principle. The multifunctional single-pulse Doppler active radar homing head was developed by the MNII [not further identified] Agat. It seeks, locks onto, and tracks moving targets based on preliminary target designation by aircraft carriers' or antiaircraft systems radars. The homing head has the following operating modes: a fully autonomous (active) mode based on initial target designations without radar support form other radar systems in flight (a "launched-forgotten" mode), a mode of inertia-correction by the radar system, and a programming mode in which the user may input a new program for the on-board computer.

Tactical-Technical Specifications of the Homing Head

Parameter	Value
Guidance system	inertial control with radio correction + active homing
Launch range (with a type R-27 missile against a target with a target echoing area of 5 m ²), km	up to 70
Lock-on range for a target with a target echoing area of 5 m ² , km	at least 20
Range of radio correction channel's action (with the weapon control system of the MIG-29 aircraft), km	up to 50
Readiness time after preliminary onswitching for 2 min, s	no more than 1.5
Weight (without dome), kg	no more than 14.5
Diameter, mm	200
Length (without dome), mm	600

—R-27R, a version with inertial control plus radio correction and semiactive radar homing in the final leg of its flight. Air force representatives placed its launch range at 50 km; 80 km is specified in the

advertising brochures provided by the developer at the Moscow Air Show. This is evidently the maximum range for unaimed firing.

The 9B-110K inertial-semiactive radar homing head was also developed at the MNII Agat. The homing head is intended for locking onto targets in the altitude range from 20 m to 25 km with a maximum of 10 km faster (slower) at target speeds up to 3,500 kmh and overloads of 8 units.

Two missiles may be launched at two targets. The homing head is ready for use 1 second after a target designation has been received from the weapon control system of an MIG-29-type carrier.

Tactical-Technical Specifications of the 9B-1101K Homing Head

Parameter	Value
Lock-on range for targets with a target echoing area of 3 m ² , km	25
Time of inertial guidance with radio correction at a maximum distance from the carrier of 25 km, s	30
Body diameter, mm	219
Length (from the nose cone), mm	1,173
Weight, kg	33.5
Weight of instrument section, kg	21.5
Range of permissible working temperatures of the surrounding air, °C	-55 to +60
Permissible humidity of the surrounding air at a temperature of +35°C, %	98
Permissible pressure, mm Hg	up to 14

—R-27RE, which is a modification of the R-27R with an increased launch range. It is used on the following aircraft: MIG-29K, MIG-29M, MIG-29S, Su-27, Su-27K, and Yak-141.

—R-27T, which is a version with all-aspect passive IR homing. It is used in accordance with the "launched-forgotten" principle. At the Kubinka-92 air show, air force representatives "revealed" a launch range of 45 km to journalists. The developer's brochures at the Moscow Air Show-92 specified (to the front hemisphere of a target) 72 km. This is evidently the maximum range for unaimed firing. It has a launch weight (according to the Kubinka-92) of 246 kg (versus 254 kg indicated at the Moscow Air Show-92).

—R-27TE, which is a modification of the version R-27T with an increased launch range. It is used on the following aircraft: MIG-29K, MIG-92M, MIG-29S, Su-27, Su-27K, and Yak-141.

—R-27EM, which is a version with inertial control plus radio correction and semiactive radio homing in the

final leg of flight. It is used with aircraft launcher and catapult devices against highly maneuverable aircraft, helicopters, winged missiles of the Tomahawk type at a minimum altitude of 3 m above the water's surface, anti-ship missiles of the Harpoon type, and other targets. It destroys them on all approaches; day or night; under simple or complicated weather conditions; in the presence of natural noise or jamming; and against the background of a land or sea surface despite active evasion, noise, or fire counteractions.

R-33E Missile (AA-9 Amos)

This long-range air-launched missile of the "air-to-air" class has inertial control and semiactive radar homing in the final leg of flight. It is used on MIG-31's with belly aircraft launchers (four missiles are slung) to intercept aircraft and winged missiles. It destroys targets flying at altitudes of 25 to 50 m over different surfaces up to 26-28 km at M = 3.5 s while flying up to 10 km faster or slower than the carrier. Up to four targets at different altitudes and ranges may be hit simultaneously. According to foreign data, it has a range of more than 160 km; a range of 120 km was indicated at the Moscow Air Show-92.

R-40 Missile (AA-6 Acrid)

This missile belongs to the medium-range "air-to-air" class with TGS [not further identified] or a semiactive radar homing. It has a range of about 72 km. It is used on the MIG-31, MIG-25, and Su-15 aircraft.

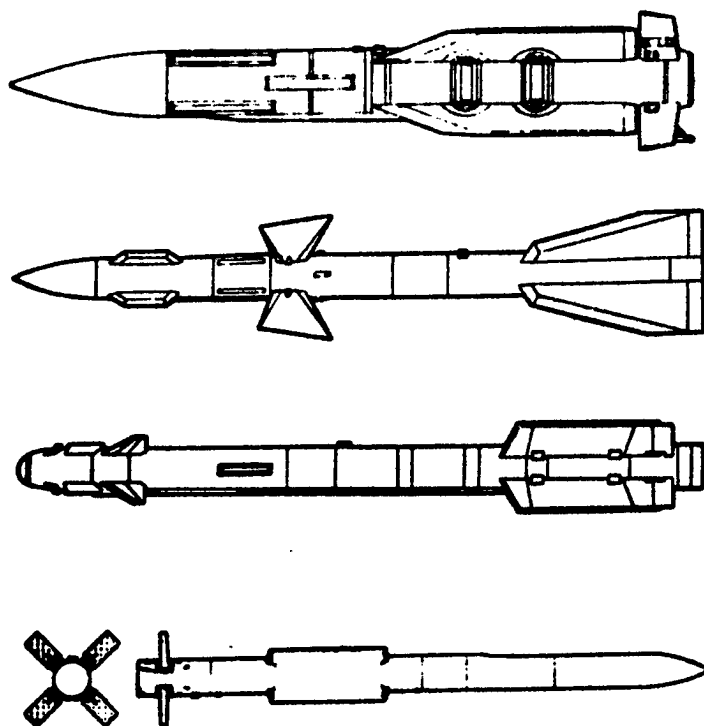
R-60 Missile (AA-8 Aphid)

This short-range air-launched guided missile of the "air-to-air" class has an IR homing head. It is used on the following aircraft: MiG-21, MiG-23M, MiG-25PD, MiG-29, MiG-29S, MiG-31, Su-24M, Su-25T, and Yak-38.

R-73 Missile (AA-11 Archer)

This aircraft-launched guided missile of the "air-to-air" class is intended for highly maneuvered combat. It is used on the following aircraft: MIG-21, MIG-23ML, MIG-29, MIG-29M, MIG-29S, MIG-29K, Su-27, Su-27K, Su-25T, and Yak-141. It has all-aspect passive IR homing and combination air and gas dynamic control and is used against highly maneuverable aircraft, helicopters, winged missiles, and other targets. It destroys them at altitudes up to 5 m on all approaches, day or night, under simple and complicated weather conditions, in the presence of natural noise and jamming, and against the background of land or sea surfaces. From the standpoint of maneuverability characteristics, it surpasses existing analogues, places no restrictions on initial launch conditions, and implements the "launched-forgotten" principle. Its target designation angles are as follows: 45 degrees for the RMD1 version and 60 degrees for the RMD2 version. It may serve in organizing antimissile defense, and it permits the implementation of a reverse-start mode to defend a carrier's aft hemisphere. At the Kubinka-92 air show the missile was said

Figure 2. R-27R, R-73, R-33E, and RVV-AYe guided missiles.



to have a length of 2,100 mm, maximum launch range of 35 km, and warhead weight of 7.4 kg. At the Moscow Air Show-92 the developer narrowed these values for the RMD1 version, as follows: 2,900 mm, 30 km, and 8 kg, respectively.

RVV-AYe Missile (R-77)

A mock-up of this aircraft-launched medium-range air-to-air class missile with an active radar homing system, which is now in development, was presented at the exhibition. The missile has a short aerodynamic plane and four latticework control surfaces located in its tail section. It is used against highly maneuverable aircraft, winged missiles, "ground-to-air" and "air-to-air" missiles, strategic bombers, and helicopters (including in a hovering mode). It hits targets from any direction in all approaches, day or night, under simple or complicated weather conditions, under conditions of electronic counteraction, and against a background of ground or water surfaces in accordance with the same "launched-forgotten" principle (including with multichannel fire). The creation of a version with an engine with increased overall dimensions for longer-range launches at low altitudes and to hit DRLO-type aircraft at ranges up to 150 km or more is also planned. It is capable of attacking targets with a flight angle of 90 degrees (relative to the carrier).

COPYRIGHT: "Krylya Rodony", 1993.

Specifications, Performance of MI-26 Heavy Transport

93UM0718A Moscow KRASNAYA ZVEZDA in Russian
23 Jul 93 p 2

[Article by KRASNAYA ZVEZDA Correspondent Valentin Rudenko, under the rubric: "Arsenal": "The MI-26: Epic Hero of the Sky"]

[Text] The MI-26, which this story is about, is frequently encountered at civilian airfields. But military aviators also consider it their own. In the Armed Forces, it is widely utilized to transport various armored vehicles, personnel, and to accomplish other missions. The MI-26 was developed according to a Ministry of Defense order at the Design Bureau imeni M.L. Mil, which Academician Marat Tishchenko headed at that time.

"We began work on the MI-26 program in the mid 1970's," said the firm's Deputy Chief Designer Aleksey Samusenko. "By that time the Design Bureau already had the solid experience of designing heavy aircraft. The MI-6 transport helicopter with a cargo capacity of up to 12 tonnes had already been developed in 1957. The MI-10—the "flying crane"—with a cargo platform capable of transporting cargoes weighing up to 15 tonnes took off three years later. Developed in 1967, the MI-12 coaxial design heavy transport helicopter could take on board cargoes weighing up to 40 tonnes. Indeed, this

aircraft did not enter series production. The MI-26 that was developed in 1977 became the logical continuation of the family of heavy cargo helicopters. It incorporated all of the best from its predecessors but did not copy them. This was a fundamentally new helicopter in which many original design and technical solutions were realized. It is capable of transporting cargoes weighing up to 20 tonnes.

According to the universal admission of the experts, the reduction gear became the spark of the MI-26. Chief Designer Gennadiy Smirnov, Lead Designer Vladimir Shutov, and many others with whom we had the opportunity to exchange opinions are convinced: if the MI-26 had a reduction gear of the same design as on the MI-6 and MI-10, the helicopter would simply have not existed. It is appropriate to note that the main reduction gear for the MI-26, beginning with the design drawings and until development of the test model and its testing, was totally designed at the OKB [experimental design bureau] imeni M.L. Mil. Engine building firms were previously involved with that.

Two D-136 gas turbine engines with an output of 11,400 horsepower each have been installed on the MI-26. They have been standardized with the well-known D-36 aircraft engine. The helicopter noticeably exceeds similar foreign aircraft in many parameters and received a high assessment at international air shows at Le Bourget, Farnborough, and Dubai. At various times, more than 20 world records have been set in it.

The MI-26 does not carry any weaponry whatsoever. The helicopter is widely used in the national economy, especially in the areas of the Extreme North and Siberia.

Although quite a bit of time has passed since the development of the MI-26, work at the design bureau to improve it and to improve the flying-technical specifications is not ceasing. The helicopter has good prospects for modernization. For example, right now, work is being conducted at the experimental design bureau to develop a special staggered cockpit for the MI-26 from which the course of assembly work could be controlled. In the near future, they plan to equip the helicopter with main rotor blades that are totally manufactured from composite materials. Work on certification of the helicopter is proceeding at full speed.

The crew of the MI-26—is five men: crew commander, deputy crew commander, navigator, onboard engineer, and external suspension operator. In a number of cases, an onboard mechanic can be included in the crew.

The MI-26 has been in series production at “Rostvertol” Rostov Helicopter Production Enterprise.

Primary Flight-Technical Data of the MI-26

Takeoff weight, in kilograms	
Normal	49,500
Maximum	56,000
Weight of empty helicopter, kg	28,270
Flight speed (N-500 m), km per hour	
—Maximum	295
—Cruising	255
Ceiling	
—Static	1,700
—Zoom	4,600
Flight range, km	
—With a full refueling of the main tanks	670
—With a full refueling of the main and auxiliary tanks	1,800

CIS: NAVAL FORCES

Kapitanets on Future Russian Fleet

93UM0652B Moscow *MORSKOY SBORNIK*
in Russian No 3, Mar 93 pp 48-54

[Article by Fleet Admiral Ivan Matveyevich Kapitanets under the rubric “The Year 1993”: “What the Russian Should Be”]

[Text] *Ivan Matveyevich Kapitanets (1928) is a well-known military commander and Admiral of the Fleet. He has commanded ships and task forces of the Navy, the Kamchatka Naval Flotilla and the Baltic and Northern fleets. He appears regularly in the pages of MORSKOY SBORNIK on problems of the development of the fleet and its history, as well as ways of increasing the viability of naval vessels and the conceptual framework for their construction today.*

Any state that is resolved to have a navy that would meet the needs of its protection against threats from the sea can build and maintain only that sort of navy (in both the quantitative and the qualitative sense) that corresponds to the level of its economic, political, social and spiritual development. A country that does not possess a naval force or has lost it for some reason is also deprived of a decisive voice in world affairs and, consequently, confidence in its independence and security.

The history of the development of civilization, as well as the wars and military conflicts of the 20th century, confirm the importance of having naval might for countries with outlets to the seas and oceans. The activity of military fleets, both in the course of wars and during years of peace, has become truly global and, as a most important instrument of the foreign policy of the great powers, has in turn an ever greater influence on the nature of it. The local conflicts of the last decade—the Anglo-Argentine conflict in 1982, the combat operations

of the U.S. Sixth Fleet against Libya in 1986 and, especially, the coalition of NATO countries against Iraq in 1990-91—are typified by the mass application of naval forces at great distances from their bases and at considerable ranges from the strike targets, confirming the rise in the naval might of the leading powers of the world and the role of the fleet as a powerful factor in their foreign policy. This can also be seen from the appearance of one of the military leaders of the United States, former Chief of Staff of the Navy Admiral K. Trost, in the May 1991 issue of the American journal *PROCEEDINGS*: “The Navy has proved that it is the force that is most often selected by the presidents of the United States. The Navy has been employed in more than 50 crisis situations in the last decade and almost 200 conflicts since World War II, which is more than 80 percent of all the crises that the United States has encountered over that period.”

The fleet has also played an important role in all the stages of development in the history of the Russian state. That was the case during the period of Kievan Rus and Muscovy, the Russian Empire and Soviet Russia. Formed as a regular navy starting in 1696, our navy has taken part in 22 wars, waged 87 major naval battles and made many outstanding geographical discoveries over the almost 300 years of its history. The fleet has given Russia many talented scientists, writers, artists and composers.

Two elements should be singled out for a correct understanding of the directions in which the fleet has developed at all the stages of its existence. The first is the fact that the navy of a state (as its armed forces as a whole) does not exist just for the sake of its own development and functioning. The second is that each country builds and maintains a fleet in accordance with its own military-political views and the state of its economy. The decisions of the political leaders of the state, who proceed from an evaluation of a certain military-strategic situation, are thus predominant in the development of a navy. I would like to note in this regard that the time of appearance of a regular navy in Russia was conditioned by its emergence and affirmation on the world stage as a great power.

Let us dwell briefly on a consideration of the attitudes of the Soviet military-political leadership toward the problem of building a fleet. Three military reforms were carried with the aim of transforming and improving the armed forces. (A fourth is underway now.) One shortcoming was the fact that they have been carried out to a significant extent in impulsive fashion, without a sufficiently deep analysis of the changes in the military-strategic situation around the world. Their principal substance, as a rule, was cutbacks in the amount of personnel, arms and hardware instead of a systematic transition to new quality on the basis of the latest technologies. Suffice it to recall that N.S. Khrushchev, making the “impulsive decision” in the 1950s to curtail the construction and destroy the large artillery ships and the navy as a whole, proceeded from incorrect premises.

That was clear even then to many professionals, but some did not want to be heard while others were wary of defending their views. The break-up of cadres, and first and foremost those with experience gained in the Great Patriotic War, inflicted particularly great harm to the fleet at that time.

One reason for that state of affairs, in my opinion, is the loss by our navy of its independence to a certain extent, if it may be expressed thus. It is well known, after all, that the fleet of the former Russia, despite the pursuit of five reforms, was always directly connected to the highest levels of the leadership of the empire and the Tsar personally. The Naval Ministry was among the first ministries formed in Russia. It existed from 1802 through 1917. The Navy Department retained a certain independence for a number of years after October as well. Only in the reforms of 1924-26 did it lose it, and its central bodies became, with the rights of directorates and departments, a part of the People's Commissariat for Military and Naval Affairs. A re-evaluation of the role of the fleet and the appearance of the economic capabilities for its further development, however, required changes in the existing structure in just ten years that did not provide for the development and realization of plans for its construction under the new conditions. This led to the creation of the People's Commissariat of the Navy in December of 1937. And although the dominant role of the People's Commissariat of Defense and the General Staff in resolving issues of military organizational development and operational control of all the country's armed forces was preserved, the decision allowed the Navy greater independence and an opportunity to realize the programs for the construction of the fleet, its preparation for war and the control of its own forces. There were still quite a few difficulties in the operational control of the fleets and interaction with the Stavka and the General Staff, as was shown by the Great Patriotic War, it is true. But the Navy nonetheless successfully performed the combat missions it was assigned as a whole.

After the end of the Great Patriotic War followed, in March of 1946, the generally unexpected decision to abolish the People's Commissariat of the Navy and form its Main Command as part of the People's Commissariat of the Armed Forces (the Ministry of the Armed Forces starting in 1947). This once again markedly limited the independence of the Navy in the realm of the everyday control of fleet forces and on issues of its organizational development, which had an immediate effect on the realization of postwar shipbuilding programs. The Naval Ministry was thus created again in February of 1950.

The military-political leadership of the country, under the influence of successes in the assimilation of nuclear missiles and in connection with a review of military doctrine, was inclined toward other views of the role and place of the Navy in the system of national defense in the middle of the fifties. Its postwar development program was partly curtailed, and in 1954 the Naval Ministry was once again re-organized into the Naval Main Command as part of the Ministry of Defense. The Navy was thus once again deprived of the immediate resolution, at the governmental level, of questions connected with the

realization of programs of its development, but retained its independence in the operational and everyday supervision of fleet forces.

Such changes in the administrative structures and functions of the naval command undoubtedly had a negative effect on the development of individual elements of the fleet and made building it more difficult. The stable existence of administrative-management (Département of the Navy) and operational (Naval Staff) structures for the control of the U.S. Navy, at the same time, shows that this allows the resolution of issues of naval development at the state level proceeding from the concepts of its combat application. One must give due to the United States, where state programs for the construction of these or those types of arms are determined on the basis of military-economic calculations, and which are supported in a material sense and worked through in practice on the basis of legislation. That is how it was in the construction of nuclear missile submarines, the aircraft in the AWACS system, the missile submarines and surface ships with high-precision weapons, the creation of global and regional command and control systems and the development of the amphibious rear. Sufficient attention has not and, in my opinion, is not devoted in our military doctrines today, in their military-technical section, to the utilization and development of the fleet.

One cannot fail to give due, however, to the fact that the USSR Navy before our eyes became, in essence, an ocean-going, nuclear-missile, nuclear-powered and aircraft-carrying fleet worthy of a great power. And the fact that we created such a fleet was not someone's whim, but rather an objective necessity. Even though it was born at one time in the confrontation of two socio-political situations, a powerful fleet remains today one of the most important conditions of the security of our state.

A modern fleet is an exceedingly complex but essential, albeit expensive, system that is created gradually, does not suffer leaps forward or interruptions in its development and requires constant attention and concern instead. Historical experience, including our own, testifies to this, and ignoring it would be an enormous and unpardonable error fraught with serious consequences.

Our fleet today largely reflects the confrontation at sea that existed between the United States and the USSR starting in the beginning of the 1960s and lasting right up until the middle of the 1980s, which undoubtedly also had an impact on its quality. The constant rivalry with the likely adversary and the dictate of the military-industrial complex engendered a rise in the number of designs for submarines and surface vessels, as well as prototypes of arms and military hardware, with serious detriment to their standardization. Owing to the fact that priority in the development of the Navy was given exclusively to the ships—rather than the systems determining the combat readiness of the Navy as a whole—our backwardness in the development of a number of systems for the command and control of forces and weaponry, battlefield illumination and over-the-horizon

target designation has begun to be felt more and more. This has engendered difficulties in the realization of the strike potential of our ships in the shortest possible time. The development of forces for combat, rear-support and special-technical support and the basing and infrastructure of the fleets has also lagged. The country's shipbuilding industry has in recent decades concentrated only on the building of ships, while the task of repairing them has been entrusted almost entirely to the inadequately equipped and financed ship-repair facilities of the Navy. A movement of the shipbuilders away from responsibility for the quality of vessel construction has been noted. This has in turn required large financial expenditures for the creation of fleet shipbuilding complexes, and the maintenance of a whole army of specialists for guarantee oversight from the enterprises of industry at fleet expense. Some of our ships have not had the opportunity of being repaired for up to ten years and have aged prematurely as a result, while the Ministry of Shipbuilding has been seeking any way to utilize its yards...

One may conclude, proceeding from the aforementioned, that the predicted changes in the military-political situation, the possible nature of contemporary wars and the achievements in the most important areas of scientific and technical progress affecting changes in the combat capabilities of naval forces and methods of maintaining them at high combat readiness, should all be taken into account to a greater extent today in the development of the Navy. Our main task remains ensuring the ability of the Navy to accomplish its purpose under any conditions in the unleashing and waging of war. The principal focus therein, however, must of course be namely on keeping wars from being launched, and thwarting possible aggression from the oceans and seas.

An analysis of the development trends of the navies of leading countries around the world and the existing approaches of their military-political leadership to possible cutbacks in those forces unfortunately do not provide us with grounds for complacency or tranquillity. Former President of the United States George Bush, talking about the problem of cutbacks in the armed forces, declared to Congress on 28 Jan 92, declared that "we should not return to the times of the 'emasculated army.' We cannot repeat the mistakes that were made by powers in this century, when unconcern followed and spending on defense was cut back after the armistice, as if the world would be safe forever." That position is expressed in the military organizational development of the Western countries, although the changes in the former Soviet Union and the countries of Eastern Europe in 1991-92 and the signing of treaties for cutbacks in nuclear and conventional arms have reduced the likelihood of the outbreak of a large-scale war. The United States and NATO, it is true, are reviewing and adjusting their military doctrines and strategies, as well as their policies, but they are striving to make use of those changes to strengthen and expand their own influence on the world stage, upgrade their armed forces and

bring them to a qualitatively new level. The United States thus adopted a new "regional defense strategy" in August 1991 in connection with the changes in the military-strategic climate and re-assessment of the directions of the military threat. Limited wars and armed conflicts in various parts of the world are considered to be the most likely.

The United States, while planning to reduce naval personnel by an average of 25 percent, is nonetheless planning to increase its combat might by 1.5—2 times through the adoption of advanced weapons and support systems for their combat activity. That will undoubtedly entail changes in the forms and methods of the application of naval forces. The outlines of the warfare of the future ("fourth-generation" warfare) had already appeared in the United States and NATO war against Iraq. Most important is the fact that aerial warfare is being turned into air and space warfare, which will be conducted by high-precision weaponry based at sea, in the air and in space making use of new striking principles. It will be employed using reconnaissance-in-force complexes and systems, in most cases able to detect and hit targets automatically in the entire depth of enemy territory. Their paramount targets are becoming command, control and communications systems, power sources and military facilities, especially the means of reciprocal strikes. The massed application of this weaponry in strikes will make it possible to achieve aims of an operational-tactical and even strategic scope. The improvements that are underway on these today, together with nuclear weapons, are proceeding along the path of increasing the accuracy of guidance to the target, their survivability and ability to overcome the opposition of missile-defense systems.

The widespread application of air and space support systems for combat operations (reconnaissance, early-warning systems, communications, navigation and the like) imparts a new quality to the armed forces, and increases considerably their capabilities to waged armed combat. The armed forces of Russia should thus also possess a potential able to ensure the detection of attacks being prepared, repel them and inflict a destructive answering blow on the enemy.

The NATO leadership, having adopted a "new strategic conceptual model for NATO"—a coalition military doctrine for the alliance—right after the American "regional defense strategy" in November of 1991, is envisaging the use of "immediate reaction forces" and "rapid reaction forces" that will include operational groups, formations and task forces, including standing ones, formed in the Atlantic, the Mediterranean and the Baltic.

The military doctrines and concepts of the United States and NATO, as we see, are of a concrete offensive nature. The United States moreover intends to ensure its national security both in Europe and in Asia, *i.e.* far beyond the borders of its own territory, by means of a permanent presence in important regions.

Contemporary naval strategies find their realization in the conceptual models for the combat application of the Navy—the "forward naval lines" (United States) and "forward defense at sea" (NATO)—as well as in the principle of the "global utilization of forces in operations" (United States and NATO). The essence of these concepts is the creation of a threat to likely adversaries from all maritime sectors through the deployment, first and foremost, of aircraft-carrying and missile strike forces and ASW forces in forward sea and ocean areas, with the aim of blockading hostile fleets at their own shores and making the deployment of his forces and the provision of favorable conditions for his own large-scale offensive more difficult. Suffice it to say that it is namely now, when our Navy has reduced its activity sharply in the seas and oceans, beyond all limits, that the fleets of the United States and NATO are maintaining their patrols for "nuclear deterrence"—some 17—19 ballistic missile nuclear submarines—and up to 25—27 attack submarines and 12 air squadrons of shore patrol aviation, as well as three aircraft-carrier groups and several standing formations of NATO, at the "forward naval lines" and in the "forward defense at sea" zones.

Former U.S. Secretary of the Navy L. Garrett, evaluating the role of the Navy under contemporary conditions, noted in a report to Congress that "the naval forces of the United States remain the sole branch of the armed forces, in the military-political situation that has taken shape in the world, that is able to exert an American military presence most fully during peacetime in any part of the globe, make a show of force and monitor strategically important areas of the world's oceans."

In analyzing the conceptual model for the use of the navies of Western nations in the 1990s, one may thus predict the conditions under which the Russian Navy will have to operate.

1. The naval forces, which will have to be among the most combat-ready, universal and resilient branches of the armed forces, able to perform a broad circle of tasks on land as well as maritime theaters, will have the leading role in the realization of the foreign policy and military strategy of the United States and NATO.

2. The equipping of the U.S. Navy and the NATO navies with qualitatively new weapons of warfare and in their combat capabilities are designed, first and foremost, for active operations in ocean and sea forward areas, with the aim of seizing the operational and strategic initiative in the event the climate worsens or war begins.

3. The activity of the Western navies will by and large be preserved despite the easing of the military-political climate around the world and the normalization of relations between Russia and the United States, and a reduction in it is possible only to the extent of the realization of treaties on cutbacks in nuclear and conventional weapons.

Thus, taking into account the prevailing military-strategic situation around the world, a conceptual framework for the application of the Russian Navy in the event of military conflicts in the 1990s can be formulated in most general form. The Navy, in accordance with the defensive nature of the military doctrine of Russia, should ensure national security from maritime sectors, in conjunction with the other branches of the armed forces, by means of thwarting air or missile strikes and conducting a series of naval operations to rout assault groups and ASW forces, as well as maintain supremacy in adjacent seas and preserve a readiness for the use of nuclear weapons in retaliatory strikes. Combat operations at sea should be of a decisively offensive nature in routing enemy groups in the near and distant fleet zones.

The fleet, proceeding from a conceptual model for the application of naval forces and the political and economic conditions of the country, should have the optimal restraining potential and be able to provide for the security of Russia from the sea with regard to existing threats. Priority in the development of naval forces today would seem best given to forces and equipment intended for preventing possible aggression, providing for the reliable repulsion of air or missile strikes and the execution of a retaliatory strike using forces able to operate in any sector where a threat to the security of Russia has appeared.

The question arises, proceeding from this, of what sort of fleet it should be. The naval might of the Russian state will undoubtedly be determined by military-political, economic, scientific and technical, geographic and historical factors. The Navy should accordingly be unified and indivisible, balanced by types of forces in accordance with the military doctrine, meet the requirements of contemporary science and high technology, be mobile and be capable of operations across the entire expanse of the world's oceans for the guaranteed protection of the interests of Russia.

The resolution of that vitally important issue for the state requires basic scientific research and the development of a theory for its organizational development and application. I would like to note, in speaking of the prospects for the building of the fleet as a whole and its vessel inventory in particular, the priority of the development of its infrastructure, support and servicing, concentrating particular attention on increasing the purely defensive capabilities of our forces.

The ships should be qualitatively developed, and for that a ship should have sufficient combat might, good concealment in operations, great autonomy and range, should possess sufficient resistance to damage, good maneuvering properties, standardized weaponry and technical gear and an automated system for the command and control of the combat operations of the ship and the task force. The integration of the ship's weapons with the technical gear into unified multi-functional combat systems, that is to say, should be provided for.

Nuclear-powered submarines with antiship missiles, missile and ASW surface and aircraft-carrying ships, naval missile-carrying and shipborne aviation should all be further developed with an increased trend toward their standardization. Global and regional systems for command, control and battlefield illumination should also be developed. It is essential to take into account therein that:

1. A navy is not a set of personnel, equipment and facilities for various purposes, but rather a continuously operating and constantly improving combat system.
2. A navy should be developed in comprehensive fashion in all the elements of its infrastructure.
3. The development of the Navy should be based on modern theory of naval art and training of forces, and supported with the most modern scientific, technical and military-industrial potential of the state. There is naturally also the necessity of reconstructing naval science.
4. The Navy, within the framework of the overall development of the Armed Forces of Russia, should receive greater independence in its development.

The loss today of the unified and streamlined system of defense that was at the disposal of the former Soviet Union, somewhat of a weakening of the unified air-defense and anti-missile defense systems that had existed before and narrowing of the basing zones for the forces of the Baltic and Black sea fleets, the Caspian flotilla and the division of these latter is doubtless eliciting anxiety regarding the security of Russia and the fate of the fleet as a component of the naval might of the state.

It seems that Russia, as a great naval power, is today losing its positions, and if things develop even further in the way they have developed in the last year or two, serious harm will be inflicted on the combat capability of our Navy. And that cannot be permitted. I would thus like to remind you once again that the strategic line—"naval vessels must be..."—has remained valid and unchanged since the times of Peter to our day.

COPYRIGHT: "Morskoy sbornik", 1993.

Kolchak: 'What Sort of Fleet Does Russia Need?'

93UM0652A Moscow MORSKOY SBORNIK
in Russian No 3, Mar 93 pp 24-29

[Article by Captain 2nd Rank Aleksandr Vasilyevich Kolchak under the heading "The Year 1908": "What Sort of Fleet Does Russia Need?"]

[Text] Aleksandr Vasilyevich Kolchak (1874—1920) was a well-known officer and military commander in the Russian Navy. He commanded a destroyer during the Russo-Japanese War, and later a battery at Port Arthur. He was a participant in four polar expeditions, and served on the Naval General Staff. He was published more than once in MORSKOY SBORNIK, as well as in domestic and foreign journals. During World War I he commanded

a mine division in the Baltic, and then commanded the Black Sea Fleet. He was Military Minister of the White Guards government in Siberia starting in 1918, and then the "Supreme Ruler of the Russian state" and the Supreme Commander-in-Chief. The Admiral was executed in 1920. The article was published in Nos. 6 and 7 of 1908.

The last war, with the destruction of the Baltic Fleet at Port Arthur and the Korean Strait, brought Russia to the loss of naval might in almost all waters that touch on its maritime shores; the internal state disorder that followed the war could not help but have an effect on the remnants of the former naval forces, inflicting grave blows to its moral properties and weakening it even more. The question of the resurrection of the fleet is now thus being raised the same way as it was after the era of the terrible Napoleonic wars a hundred years ago.

Matters are currently somewhat different. Apart from the extremely straitened financial situation, we should also reckon with the loss of awareness of the necessity not only of the possession of our border waters, but even the absence of correct ideas on sea power and its significance—right up to doubts of the expediency of the very existence of such a force—among a considerable portion of society.

Reproducing the existing chaos of political convictions and views on the desirable state order of the Russian Empire, the ideas on an armed naval force being propagated in societies, meetings, periodicals and literature range between definite opinions of the complete superfluity and even harmfulness of a fleet for Russia, and just as confidently expressed precepts on the necessity of the immediate reconstruction of naval power...

The tendency, long in existence, toward the creation of a defensive fleet is especially noticeable among this collection of every possible understanding of naval power; opinions of the predominance of the army for the state—with the necessity arising therefrom of the fleet being an auxiliary part of that army—can be singled out. An awareness of the grave financial difficulties, on the other hand, is forcing many of those who recognize the expediency, even the urgency, of creating a naval force to seek a way out in the implementation of their own ideas in as economical a way as possible, founded chiefly either on technical inventions and improvements or on a unique understanding of the properties and tasks entrusted to naval power.

I will be so bold as to look, as dispassionately as possible, at the basic issues—what Russia needs a naval force for, and just what kind of force that is, or more accurately, how that force is expressed.

War is one of the basic phenomena in the life of nations, with its essence the unyielding exercise of the national will in relation to an enemy via the application of open force. That unyieldingness, and the war that arises out of it, can be conditioned either by tasks of state necessity with the ultimate aim of developing one's own welfare,

or the opposition of one's own will to a will outside the state that is striving to attain its own welfare, very often restricting the welfare of the given state.

The former instance is defined as so-called aggressive or offensive policy, implemented where necessary by war, and the latter is defensive policy, the essence of which is reduced to the application of war only depending on the will of an enemy. The concepts of "offensive" or "defensive" in the one case or the other can pertain only to the policy that determines the attitude of the state to the causes of war; these concepts do not extend at all to war itself. As with any fight, the sole expedient war can only be an offensive one...

The necessity is thus realized of possessing force and a readiness for war not only to accomplish one's own aims, not only to paralyze the aims of others that are immediately directed at restricting one's own, but also to ensure the independence of one's own policy and the inviolability of the state altogether.

Political independence, or the definite security of the state, is ensured by the inviolability of its borders, which is achieved by the corresponding disposition of armed forces and control on its part.

It seems extremely important, however, to clarify the essence of the boundaries of a state. The state has a hypothetical line on land, established by border treaties, that defines the limits of its territorial supremacy and, consequently, the disposition of the armed forces of the state in peacetime. The question now seems much more complicated in a case where the boundary of a state is a river or an expanse of water, but extreme uncertainty arises from a military standpoint when one must consider the natural boundary of state territory as defined by the open sea or ocean.

A declaration of war is a moment of violation of border law, since this is inconceivable without the incursion of the armed forces of one of the adversaries within the limits of the other or, as sometimes happens, within the limits of a third, neutral possession. A sea boundary extends from the shores of the enemy into the open sea from the moment of the declaration of war and is established by a fight for its possession, located immediately at the shores of whoever lost that possession. As a consequence of this there is the possibility of the incursion of armed forces onto the land territory for one side and the complete impossibility of accomplishing that for the other, *i.e.* the necessity of one side having to sustain all of the severity of the consequences of the fighting on its own territory and the security of the other in that regard.

While the physical conditions of the land borders and border sections of state territory could favor or impede the incursion of armed forces, maritime boundaries are altogether favorable for this act. The greater the value to the state of its maritime boundary, the more dangerous the consequences arising therefrom.

The worldwide significance of the sea as an aggregate of most convenient and most advantageous lines of communication gains exceptional importance during wartime. The water expanse of the sea could be considered from this standpoint as a network of railroads developed to the utmost, and which gains desirable strategic significance from the moment of the declaration of war. A state that loses those strategic lines with the declaration of war could be compared to one that has no equipped lines of communications in the border regions, while its enemy possesses highly developed network of the most modern railroad lines. The significance of communications and transport is too understandable to be worth discussing further.

One must also keep in mind a distinguishing feature of sea boundaries in the absence of the mastery of the sea—the possibility of sustaining a strike at many locations whose practical repulsion is extremely difficult, thanks to the complete possibility for whoever controls the sea to employ and make the greatest use of the principle of surprise. It is almost impossible to foresee where and when a strike could come, and consequently to prevent it.

“The sea unites those whom it separates,” and this aphorism of peacetime could be changed to the following in wartime: “The sea unites the forces of whoever is possesses it, and divides the forces of those who have lost that possession.” An armed force with possession of the sea that has made an incursion from the sea onto the land territory of an enemy obtains a base whose resources are inexhaustible in the form of that sea, since that base is the whole world.

The experience of the history of wars, the experience of maneuvers in peacetime, military considerations and calculations all show that the incursion of a hostile army from the sea onto the shores of a state that has lost possession of the sea cannot be prevented by ground forces. An army operating on shore cannot hinder the landing from the sea of another army.

The latter could be smashed or destroyed as a consequence, depending on the correlation of forces, but prevention of the consequences of military operations on one's own territory cannot be achieved in this way. That truth remained immutable during the era of the Carthaginian Wars, during the time of William the Conqueror, during the Crusades, during the Crimean campaign and in the last Japanese war.

The security of the state or—the same thing—its borders cannot be assured by anything other than an armed force, the sole means at the current time able to resolve international interests that are not inherent within the framework of diplomatic relations. The security of the state cannot depend on the state of politics and be conditioned by any declarations or treaties, if the latter do not rely on real force. Sea borders are no exception in this sense; they are on the contrary more dangerous and require especially reliable support.

We will consider the maritime boundaries of our Fatherland. Our borders pose many inconveniences from the standpoint of military-geographical disposition... The results of a century of fighting for the sea as the great international lines of communication have been expressed in the spread of our national territory only to the internal seas: the Baltic and Black seas and Sea of Japan, the outlets from which are not in our hands. Only in the northern part is the state defined by natural ocean boundaries that currently have no serious significance for its existence in their physical-geographical conditions.

If we acknowledge that support of the maritime border lies in the availability of an armed naval force, then it would seem that such a force should be created in all three seas; moreover, by virtue of the isolated nature of those seas, the force should undoubtedly be master of its own seas and outlets from them to the ocean, so as not to be broken up and to have the opportunity to be wherever its presence is required by state interests. The practical resolution of this task is impossible; we would logically arrive inevitably at the necessity of possessing several fleets, each one of which would surpass the fleet of the strongest state on those seas. But the security of the state in no way requires that.

So it is thus necessary to consider which of the maritime borders of the state could be deemed the most valuable and subject to strikes by the strongest possible adversary. I will not consider the northern ocean borders—their little significance from this point of view is too obvious, as are the extreme northeastern regions as defined by the Bering Sea. I will begin with the Pacific Ocean regions... The expansion of Russia to the shores of the Pacific Ocean, that great Mediterranean Sea of the future, is still just a prophetic indication on the path of its further development, connected always with the century of fighting, since only that which was acquired by means of fighting, through effort, has real value. The last war—the first serious war off the shores of the Pacific Ocean—is perhaps only the beginning of a whole period of wars, which will be successful for us only when the mastery of those shores is made a most vital state necessity, and which are determined by more than an armed force alone, more than by strategic railroads or a fleet alone. The assurance of those borders can currently be achieved through policy, a policy that should rely on an armed force; the presence of the latter in the form of a fleet, the most reliable resolution of the question of the inviolability of our Pacific environs, however, is not absolutely essential. An armed force, and in particular a fleet, or more precisely the cost of it, is, in the expression of Roosevelt, the insurance premium that the state pays to insure its values. The value of the premium cannot exceed the value of what is being insured, and from that point of view the creation of a powerful force able to fight for the mastery of the sea in the Pacific Ocean is hardly advisable.

The shores of the Black Sea, the other enclosed basin whose outlets are possessed by another state, have completely different significance for us. The significance of our borders on the Black Sea is ensured by the very nature of that enclosed basin, the absence of a strong likely adversary in that sea, and the possibility of defending that sea with comparatively weak forces and resolving political complexities on it with the availability of an armed force in a different place.

The sole enemy that could threaten the inviolability of the Black Sea is England, whose mighty fleet extends the borders of Great Britain close to the maritime borders of any state. If we look to the fact that the armed forces of England are chiefly of a naval nature, we see that the fleet of England, with identical significance on all of our seas, does not directly threaten us here from the standpoint of state security.

There remains the third water basin—the Baltic Sea. This basin is also self-contained from a military-geographical point of view, but its significance is different than the aforementioned Black Sea. We have one of the strongest fleets in the world on that sea—the German, which is strong qualitatively as well as quantitatively and controlled directly by the emperor of the state, whose policies—based on profound economic reasons—are warlike...

Possession of the waters of the Baltic Sea belongs to Germany. And its maritime borders are not directed at all to the west from Polangen, but rather run in parallel with ours along the shores of Courland, further along the shores of the Gulf of Finland and approach the forward forts of Kronshtadt some 50 versts from the capital. Germany has the second largest commercial fleet in the world and one of the leading armies, and thereby represents a force that one may exist close to only as far as is determined by its peaceful policies supported by the aforementioned military might.

But could that possession of the Baltic Sea pose a real threat to the existence of our state? The economic significance of the Baltic region is not great, or at least compared with the Black Sea its physical and geographical features are also not favorable to development of especially prominent values on it, but the capital of our Fatherland lies on the shores of the Baltic some 50 versts from the German maritime border, *i.e.* a most hazardous one from a strategic point of view, approached by the best strategic routes—maritime routes—in the world...

I will not consider the significance of the capital from the broad state viewpoint, but will rather touch on this issue only from a purely military standpoint... The capital is, from the military point of view, one of the main organizational and supply bases for the country's armed forces. The assurance of that base is an indispensable condition for the armed might of the state and, from that viewpoint, is absolutely essential.

There is a trend toward doing battle starting with a retreat inside the state, with the use of the full amount of

strategic patience; I will not judge where that strategy could lead on a land front, but I know that on a naval one it could end very badly. If strategic considerations are founded on the destruction of one's own territory, they can hardly be deemed expedient. We know very well that such a strategy is not always concluded with a Borodino, but a Mukden as well. But it would be a mistake to consider an armed naval force exclusively as a means of supporting the rear and flanks of our army at the western border. We have both land and maritime boundaries on the western front of the Empire; the latter could be expediently supported only by a fleet, and the land only by an army; the presence of just one of these armed forces of the country cannot create state security and political independence to the full extent...

I will permit myself to cite the words of General Bobrikov in describing the political status of things in the Baltic Sea: "The passage of supremacy in the Baltic Sea to Germany is already a *fait accompli*. The whole political system in that basin has been disrupted, and if the consequences of the new order of things are not yet palpable, they are nonetheless enormous, creating grounds for the moral subordination of Sweden to Berlin and, in that connection, the gravitation of Finland to the new master. Whence grave results for us can be outlined with great ease, and could be accompanied by a certain slowing of the reconstruction of the Baltic combat squadron." These words were spoken 18 years ago and, unfortunately, retain their full force in the present day as well...

The political significance of a naval force in the Baltic is obvious, in view of the location of the strongest power, controlling the policy of the whole world, in that basin. Entering into a direct connection and reacting in one way or another to the armed might of one world power, we are thereby ensuring the significance of our policy around the world; and the security of our borders in the Sea of Japan and, perhaps, the Black Sea will always be dependent on the foundation of any policy—the armed force in the Baltic Sea...

Our political might was created 200 years ago on the waters of the Baltic, and there are decisively no grounds to think that over that period the Baltic Sea has lost its significance for us. Proceeding therefore from the foundations of state security and the independence of its policy, it should be acknowledged that an armed naval force should be created in the Baltic...

I indicated earlier the profound error of the concept of "defensive force," and a "defensive fleet" in particular. Also a profound... ignorance, which could create the impression of a certain defense, as an aggregate of forces and manpower able to counter the factors of an offensive. The concept of a defensive policy has been extended to the concept of methods for waging battle and, unfortunately, has cost us many millions for the creation of means whose application has truly proved to be an "attempt with insufficient means." Nonetheless, with completely no regard for either the experience of

warfare, not to mention military science, or the examples of foreign nations, we are listening to the constant voices that the sole form of armed naval force—a battle fleet—could successfully be replaced with some surrogate, the principal merit of which lies in the greater economy of funds required for its creation. The grave financial situation of our motherland, of course, is promoting an especially easy acceptance of ideas at whose foundation lies the principle of “economy,” and thus the question of these surrogate forces, called a defensive or a special fleet, have to be looked at depending on whether they can counter this falsification of the real force to a battle fleet, since not one of the great powers with aspirations to that rank would appear in a theater of war without a battle fleet in the event of a battle¹...

The complexity of the mechanism of modern warfare is indeed usually the chief grounds for seeking out means of simplification, wherein the authors of those simplifications usually forget that such a naval war in fact creates in their fantasies an aggregate of operations that in reality does not exist.

Suppose we would like to be limited to a portion of a naval force and had created one mine fleet. An adversary with a battle fleet, of course, would not send the ships of the line against that fleet, but would rather send light cruisers and mine vessels that would destroy a mine fleet that existed without support; if we gave the mine vessels light cruisers, the enemy would add armored cruisers to the corresponding types, against which light cruisers would be impotent etc.

What sort of fleet does Russia need? Russia needs a real naval force on which could be founded the inviolability of its maritime borders and on which an independent policy worthy of a great power could rely, *i.e.* a policy that would receive affirmation where necessary in the form of a successful war...

If Russia is fated to play the role of a great power, then it will have a strong fleet as an indispensable condition of that status. This question lies before us today in all of its complexity, with all of the weight of its enormous material—I would say, not expenditures, but—sacrifices, and resolving to bear those sacrifices, we must not believe but rather know that their result will be an effective force. While temporarily restricting the significance of a naval force under the pressure of conditions of the internal condition of the state, we should hold to a certain limit the size of the force being created without altering it qualitatively.

While being so bold as to deny, albeit for the time being, the necessity of an armed force—it is necessary to go the whole way and deny any fleet, since the creation of a fictitious force in the form of a special mine or submarine fleet is exceedingly expensive—in the face of the condition of our state, we do not have the right to squander tens of millions on experiments, and base at least a portion of state life on a doubtful or knowingly unsatisfactory force.

No area or part of the manifestation of state life can even be temporarily halted without harm to the whole, and no financial difficulties can justify the conscious renunciation of inviolability and political independence achieved through the correct correlation and development of the land and naval armed forces...

Footnote

1. The experience of World War I somewhat shook this widespread opinion, while World War II advanced a surface fleet of aircraft carriers as the main strike force (*Ed.*).

COPYRIGHT: “Morskoy sbornik”, 1993.

February Promotions List

93UM0652C Moscow MORSKOY SBORNIK
in Russian No 3, Mar 93 p 65

[Text]

From the Edict of the President of the Russian Federation “The Conferring of Military Ranks on Officers, Generals and Admirals of the Armed Forces of the Russian Federation”

Military ranks are conferred upon the individuals named below:

Vice-Admiral

Valeriy Anatolyevich Korniyushko
Viktor Andreyevich Kravchenko
Yuriy Gavrilovich Ustimenko

Rear-Admiral

Nikolay Viktorovich Butorin
Nikolay Nikitovich Germanov
Aleksandr Aleksandrovich Grinko
Vyacheslav Ivanovich Aruzhkov
Leonid Mikhaylovich Kovalchuk
Aleksandr Vasilyevich Konev
Aleksey Grigoryevich Krasnikov
Oleg Nikolayevich Lazarev
Yevgeniy Timofeyevich Laputskiy
Mikhail Vasilyevich Motsaku
Valeriy Nikolayevich Panteleyev
Anatoliy Ignatyevich Pivak
Gennadiy Antonovich Radzevskiy
Anatoliy Antonovich Samofal
Boris Dmitriyevich Sannikov
Nikolay Nikolayevich Sych
Viktor Dmitriyevich Fedorov
Gennadiy Stanislavovich Yakovlev
Gennadiy Pavlovich Yasnitskiy

Major-General of Aviation

Valeriy Petrovich Novichkov
Oleg Petrovich Savchuk

18 Feb 93, Moscow, Kremlin.

Military Ranks—Early Promotions

The Minister of Defense of Russia, for successes in combat training, has awarded the next military ranks ahead of schedule to a number of officers in the Navy.

Captain 1st Rank

Gennadiy Vladimirovich Kiselev
Andrey Vasilyevich Solovyev

Colonel

Vladimir Nikolayevich Kurilov

Captain 2nd Rank

Vladimir Aleksandrovich Zvade
Nikolay Vladimirovich Kalmykov
Sergey Konstantinovich Krestnikov

20 Feb 93, City of Moscow.

COPYRIGHT: "Morskoy sbornik", 1993.

Design 661 Nuclear Attack Submarine

93UM0668A Moscow MORSKOY SBORNIK in
Russian No 4, Apr 93 (Signed to press 26 Apr 1993)
pp 64-66

[Article by "Malakhit" SPMBM Associate V. Bildin, under the rubric: "Ships of Postwar Designs": "Design 661 Nuclear Attack Submarine"]

[Text] Exactly one year after the launch of nuclear submarine K-3 (which subsequently received the name Leninskiy Komsomol)—the first-born of native nuclear submarine building—in December 1959, the CPSU Central Committee and USSR Council of Ministers Decree "On the Creation of a New Fast Submarine, New Types of Power Plants and Scientific-Research, Experimental Design Work for Submarines" was issued that defined the program launched for the development of new, faster nuclear submarines, subsequent improvement and development of scientific-technical and production potential that was used in submarine building, including the development of YaEU [nuclear power plants] and missile weapons for these nuclear submarines.

In accordance with it, the Navy and the country's defense sectors began work for the development of a new type of experimental nuclear submarine that, based on all of its tactical-technical specifications—speed, diving depth, onboard weapons, armament and technical systems—should have significantly exceeded domestically-produced first generation nuclear submarines.

We need to point out that the work associated with the Design 661 submarine (the design of the high speed nuclear submarine equipped with a titanium hull, second generation nuclear power plant, and also cruise missiles that could be launched from under water received that number) and it was viewed as a priority project in the plans of Soviet submarine building.

Development of Design 661 was entrusted to TsKB-16 [Central Design Bureau] (currently this bureau is part of "Malakhit" SPMBM, St. Petersburg) of the USSR Ministry of the Shipbuilding Industry. TsKB Chief N.N. Isanin was assigned as Chief Designer and his assistants were—V.V. Borisov (general design issues and the hull), N.F. Shulzhenko (power plant), P.I. Semenov (automation and instrument-measurement equipment), V.A. Polozhentsev (electrical equipment), and A.P. Antonovich (habitability systems). Later, to ensure coordination of counter agent work, Ye.S. Korsukov was also assigned as Deputy Chief Designer. Based on Navy Main Shipbuilding Directorate policy, the following were the primary observers: initially Captain 1st Rank Yu.G. Ilinskiy and then Captain 2nd Rank V.N. Markov.

In accordance with the Tactical-Technical Task issued to industry by the Navy for the development of the Design 661 nuclear submarine, the latter should have accomplished the following combat missions of destruction of major enemy surface ships from his ship task forces and detachments using cruise missiles and torpedoes. They planned to test new models of weapons and technical systems on it; and, develop new design materials (specifically, a titanium alloy for the submarine's hull) for their subsequent use in submarine construction. Besides that, they planned to carry out the development of speed and maneuvering qualities on the nuclear submarine.

The designers and military seamen began to work on the preliminary design in 1959. It was developed in 14 variations.

We need to say that a decision had already been made to arm the submarine with cruise missiles with underwater launch at the conceptual design development stage. That task was resolved for the first time in the world. By that time, there were already diesel and nuclear submarines in the USSR Navy that were equipped with cruise missiles, but only with surface launch. Therefore, the Navy, and also TsKB-16 and OKB-52 [experimental design bureau] (V.N. Chelomey led it), had to jointly resolve the task of developing cruise missiles with underwater launch and their installation on a nuclear submarine and, as they say, "from a clean slate". During the course of this painstaking and intense labor, the Ametist antiship missile was developed, tested and accepted into the naval inventory in 1968.

The specific feature of the design of this boat also consisted of the fact that they did not authorize the employment of previously mastered, "traditional" technical systems, equipment, the automation system, instrument equipment or materials on the Design 661 nuclear submarine. As a result, this prolonged both the design periods and also the construction periods of the submarine of this design.

But let's return to the beginning of the development of this boat. It was then, in 1959, at the conceptual design stage, according to the USSR Council of Ministers directive on the conduct of NIR [scientific research

work] on the development of titanium and aluminum alloys for the manufacture from them of profile rolled stock sheets, castings, forgings, and stampings for fast domestically-produced nuclear submarines and a powerful sector of the metallurgy industry that was associated with obtaining design materials from titanium alloys was created in our country for the first time in the world. While considering the obvious properties of titanium—corrosion resistance, low magnetization, and acceptable weight characteristics—while reviewing the conceptual design, despite the skepticism of individual representatives of the Navy and Ministry of the Shipbuilding Industry, the decision was made to manufacture the submarine from titanium.

TsKB-16's work on the conceptual design began after the CPSU Central Committee and USSR Council of Ministers approved the conceptual design at the beginning of 1960 and also the primary tactical-technical elements and the tactical-technical task for the nuclear submarine proposed by the bureau (we referred to it at the beginning of the article.—The Author).

The conceptual design had already been developed in a lesser number of variations: in five primary and three auxiliary variations that were distinguished from each other by the design and layout of the pressure hull. What was common for them in all of the variations was the fact that the following were adopted: twin screw power plant with two nuclear reactors; a titanium alloy as the hull material; diving depth equal to 400 meters; high pressure air system designed for $R = 400 \text{ kg/cm}^2$; a hydraulic system with a pressure of 150 kg/cm^2 ; a silver-zinc battery; navigation (Sigma-61) and acoustic (Rubin) systems and cruise missiles and torpedoes as primary weaponry.

After approval of the conceptual design in May 1960, the bureau advanced to the engineering design stage. Here with the goal of increasing the propulsion qualities of the nuclear submarine and reduction of its noise, based upon the results of self-propelled tests of a model, the shape of a "divided end" was imparted to the aft end with a distance of five meters between the propeller shafts at the location of the screws. The next year, after approval of the engineering design, the production of the working drawings began and already in 1962, having received a portion of the titanium for manufacturing the pressure hull, USSR MSP Plant No 402 (currently Northern Machinebuilding Enterprise PO [production association]), headed at that time by Ye.P. Yegorov, began the construction of this experimental nuclear submarine. The official ceremony for the laying down of the Design 661 experimental submarine occurred on 28 December 1963 and P.V. Gololobov was appointed chief builder.

What did this submarine look like? Structurally and architecturally, it belonged among the twin-hulled submarines with pressure and outer (external) hulls. The outer hull had a circular shape based upon a cross-section. The pressure hull's nose section consisted of two

cylinders, each 5,500 millimeters in diameter that were located one under the other (in a cross-section this looked like a figure-eight) and separated from each other by a durable platform, designed for a pressure of 15 kg/cm^2 . The upper cylinder was the first and the lower cylinder was the second compartment. The aft end of the figure eight—the third compartment—was separated from them by a transverse bulkhead. Beginning from the fourth compartment, the primary pressure hull had a cylindrical shape (its diameter in the area of the middle frame was equal to 9,000 mm). The figure eight was "pinned" to it. The difference in the diameters of its cylinders and cylindrical skin of the main hull permitted the placement of 10 canisters for Ametist antiship cruise missiles, five canisters on each side, tilted toward the boat's nose, in the area of the first, second, and third compartments (between the outer and pressure hulls). These canisters had a permanent tilt toward the horizon. The remaining cylindrical pressure hull was divided, using transverse watertight bulkheads designed for pressure of 15 kg/cm^2 , into six compartments (the design of the Design 661 nuclear submarine consisted of a total of nine compartments).

The layout of the weaponry and the technical systems located in the compartments was as follows: in the first compartment—four torpedo tubes (they permitted conducting bubble-free torpedo firing from a nuclear submarine depth of no higher than 200 meters), designed to fire 533-mm torpedoes (four torpedoes in the tubes and eight spares), a rapid reloading device with racks for the spare torpedoes, the Ametist antiship missile command and control post (the missiles were located in canisters); in the second compartment—the acoustic device, one submarine battery group and the bilge post; crew living quarters, auxiliary enclosures and the second group of battery elements were located in the nuclear submarine's third compartment; the fourth compartment consisted of the control center, the power plant control center, various types of rooms, auxiliary enclosures and a housing unit; the fifth compartment was allotted for the steam generation plants (they were part of the two autonomous right and left side groups); the sixth—had two each steam turbine plants (each consisted of a main turbogear assembly which in turn was part of the left or right side group); the seventh—was for autonomous turbogenerators with panels; the eighth—for auxiliary mechanisms and equipment, reversible transducers with panels, refrigeration units and compressors and, ninth—steering gear and a bilge post.

Unfortunately, due to delays in the delivery of titanium and various component equipment, construction of this nuclear submarine was delayed and it was removed from the shop only on 14 December 1968 and its launch into the water occurred on 21 December.

The following primary tactical-technical elements characterized the submarine: normal displacement—5,197 m^3 ; primary dimensions of the hull: greatest length—106.92 m, width—11.5 m (greatest width along the

stabilizer—16.7 m), average draft in the surfaced condition with normal displacement—8 m; diving depth—400 meters; speed: surface—16 knots, submerged—42 knots (full forward speed); endurance—75 days; crew—80 men (including the officers). Power plant—nuclear, of two autonomous right and left side groups that consisted of—one steam generating plant (one water-cooled reactor with a nominal thermal output of approximately 177 MVt that supported the generation of 250 tonnes of steam per hour), one GTZA [main turbogear assembly] with an output of 40,000 horsepower and one turbogenerator with an output of 3,000 kVt—alternating three-phase current and also auxiliary mechanisms and systems. The primary consumers of electrical energy operated on three-phase alternating 380 volt 50 Hz current. The submarine's battery, that consisted of two groups of silver-zinc batteries (152 elements in each group), could be used as an emergency electrical power source.

The Acceptance Document for the Design 661 nuclear submarine into the Soviet Navy was signed on 31 December 1969, that is, nearly 10 years after the beginning of work on its development. At the plant and state tests (the latter were carried out under the chairmanship of Rear-Admiral F.I. Maslov) under 80% output of its power plant, according to the log, the submarine demonstrated a full forward speed of 42 knots, instead of the 38 knots according to the specification. A phenomenon was detected at these high speeds that had not been noted on nuclear submarines until that time. So, at speeds of more than 35 knots, "external hydrodynamic noise began to increase" that created a turbulent current while flowing by the submarine's hull. The noise reminded them of an "aircraft's hum". And at the state tests, during a 12-hour full speed mode, at a nuclear submarine speed of 42 knots, the conning tower entry door, three hatches and a buoy fairing broke in circulation.

Experimental operation of this submarine had been planned after the turnover of the nuclear submarine to the Navy already in the construction period of this submarine to verify the ideas set forth in its design by the ship builders. It began in January 1970 and ended the next year in December. After that, the boat was transferred to the Red Banner Northern Fleet. The nuclear submarine under the command of Captain 1st Rank Yu.F. Golubov completed 11 cruises at sea for a period of test operation to work out assigned missions and also one cruise for full endurance that lasted from 25 September until 4 December 1971. Having completed the speed test of its power plant at full output, this submarine attained a speed in a submerged state of 44.7 knots in a measured mile which was and is until the present a world achievement!

To what does the birth of this nuclear submarine attest? Based upon its speed and maneuvering qualities, the boat did not have any equals either in our or in foreign submarine building. The successful combination of new design solutions both during the development of the

architectural appearance and the nuclear submarine's power plant facilitated that. The use of this submarine as a test boat ensured the conduct of testing of new types of combat and technical systems under natural conditions while considering the prospects for development of future generation nuclear submarines, the introduction and study of the capabilities of new shipbuilding materials, and the development of technologies for their manufacture and employment in production and operation. However, due to a number of tactical shortcomings of the missile weaponry, and furthermore, due to the significant underwater noise (the level of which did not meet the standards of that time), inadequate service life of the boat's primary mechanisms and equipment and the long time delay of its construction (soon after the introduction of the Design 661 nuclear submarine, second generation nuclear submarines of other designs began to enter the navy), it was decided not to implement series production of Design 661 nuclear submarines. And the first in the world titanium high speed nuclear submarine, that had blazed the trail for second and, in part, for third generation nuclear submarines, was removed from the Navy inventory several years ago.

COPYRIGHT: "Morskoy sbornik", 1993

Radiation Danger From Komsomolets Reexamined

93UM0668B Moscow *MORSKOY SBORNIK* in Russian No 4, Apr 93 (Signed to press 26 Apr 93) pp 67-70

[Article by Rubin MT TsKB Lead Consultant Reserve Admiral V. Samoylov and Rubin MT TsKB Deputy Chief Designer N. Nosov: "Results of the New Expedition"]

[Text]

Echo of the Komsomolets Tragedy

Four years have passed since the loss of the Soviet Nuclear Submarine Komsomolets in the Norwegian Sea. This tragedy immediately attracted the attention of broad circles of society both in our country and abroad which, without lessening and even increasing in individual periods of time, has been maintained until now. In this regard, it seems to be advisable to examine the situation that has currently developed around the sunken submarine.

At the end of last year, ABC Television Company (United States) announced that this submarine "is the source of strong radioactive contamination". With a reference to a "team of American and Russian scientists", the television company transmitted that "the radioactive element cesium is seeping from the submarine and that, in a year or two, plutonium, the most toxic and dangerous for every living thing, may end up in the water..."

ITAR-TASS, in response with a reference to the results of a scientific expedition in the area of the loss of the

Komsomolets that were obtained at the Russian Federation Navy Main Staff, reported that strontium-90 and cesium-137 in amounts that do not exceed 1% and plutonium at 17% of the appropriate maximum permissible amounts prescribed by international standards are flowing from the sunken submarine into vitally important areas of the world.

U.S. Department of Defense Spokesman P. Williams, commenting on the ABC report, told an agency correspondent that "at this time, this is a small problem, however, we need to track the development of events", and in the words of a Norwegian Ministry of Foreign Affairs spokesman, this submarine "according to the conclusion of Norwegian experts, is at a significant depth and right now does not post any danger for the environment. A risk could arise, experts suggest, in the event of an attempt to salvage it"...

Results of the New Expedition

Our readers are already familiar with the primary results of the study of the Nuclear Submarine Komsomolets that sank in the Norwegian Sea in April 1989 and its environment that were obtained by the expedition that was organized by the RUBIN MT TsKB [Maritime Equipment Central Design Bureau] in 1991.¹ At that time, damage was detected to the forward part of the nuclear submarine's pressure hull.

Under these circumstances along with performing the required annual assessment of the dynamics of the radiation-ecological situation on the nuclear submarine and surrounding it, it was proposed that we conduct additional investigations of the pressure hull and the condition of the munitions in the first compartment to determine the nature and amount of damage. Furthermore, to reduce possible radiation leaks, we decided to conduct experiments to test certain techniques for closing areas where radioactive materials were exiting the nuclear submarine. And, finally, this expedition would lay the foundation for systematic radiation-ecological monitoring in the area where the submarine is located.

On the basis of these proposals, Rubin MT TsKB Head, Academician I.D. Spasskiy submitted a report to the Russian Federation President. At the beginning of April 1992, the Russian Government decided to conduct this work near the Nuclear Submarine Komsomolets. However, the Institute of Oceanology imeni P.P. Shirshov was able to provide NIS [scientific research ship] Akademik Mstislav Keldysh with the Mir deep-sea habitable devices [GOA] for participation in the expedition only in May, although work was planned to be conducted in July-August—the times of the most favorable weather conditions in the area. Therefore, we had to conduct the preparation of small underwater autonomous television-controlled devices that are required for the internal examination of the submarine's hull and the selection of personnel for experiments for sealing certain openings on the nuclear submarine in a very limited period of

time. In the process, the accomplishment of some tasks or other was essentially a totally new matter that did not have a precedent in our country. They couldn't count on acquiring these devices abroad since we also did not obtain allocated hard currency.

During the course of March-April 1992, all of the documents were prepared that were needed to conduct the planned work (technical tasks, programs and the methods for their accomplishment), and the appropriate contracts were also concluded. Primarily those scientists and experts who participated in the previous expedition were part of the expedition. Preparation of the expedition, despite the difficulties, including financial, was completed within the designated period, although we had to accomplish a significant portion of the preparatory work already onboard the NIS during the transit to the area of the investigations.

By the middle of May, RAN [Russian Academy of Sciences] NIS Akademik Mstislav Keldysh (Captain—A.M. Korobov, Chief of the Expedition—R.D. Kosyan) and Navy OIS [oceanographic research ship] Ivan Kruzenshtern (Commander—Captain 1st Rank V.P. Narkevich) put to sea. There were 56 scientists from nine leading scientific and design organizations (Rubin MT TsKB—the head organization, TsNII [Central Scientific Research Institute] imeni Academician A.N. Krylov, Radiyevy Institute imeni V.G. Khlopin NPO [Scientific Production Association, Khurchatovskiy Institute RNTs [Research Science Center], VNII [All-Russian Scientific Research Institute] EF [not found], the Naval Scientific-Research Institute and others) on board the ships. Representatives of "non-state" institutions, specifically, Intershelf SP [Joint Venture], that developed and manufactured the FISH-103 television-guided small deep-sea viewing device (GOK), participated in the expedition for the first time. Foreign experts from several states were invited, like to the previous expedition, but by the designated time only Norwegian State Institute of Radiation Hygiene Chairman N. Berner had arrived with his equipment. A total of 286 people participated in the expedition.

Just like in the 1991 expedition, one of the authors, N.A. Nosov, was tasked with technical leadership of the investigation and the other, V.A. Samoylov, was tasked with overall leadership of the expedition's work and coordination of the activities of both ships.

During the course of the pre-expedition preparation, we must point out that a series of unique highly sensitive REM-type gamma-spectrometers was developed at Kurchatovskiy Institute RNTs (manager—G.A. Nezhdanov), the EKHO-5 device—at TsNII imeni A.N. Krylov (manager—A.I. Laykin), and at Radiyevy Institute imeni V.G. Khlopin NPO (manager—A.I. Stepanov) manufactured soil samplers, that do not lag behind American soil samplers, and canisters with "Trepang" type sorbents to gather radioactive nuclides at a great depth. A collective of military scientists

(manager—Doctor of Technical Sciences V.V. Lobyntsev) developed new canisters with "Laminariya" type sorbents. Military hydrographers submitted an experimental model of a "Remen" sensing-profilograph to measure speeds and the direction of currents at various depths.

At the same time, along with the specially developed new equipment to carry out the research program, we used all of the organic equipment and devices of both ships and first of all the Mir-1 and Mir-2 GOAs that carried out six dives, of which two were paired and two were separate. The total duration of the dives of the GOAs was 91 hours and 31 minutes, of which the time of the stay on the bottom—was 75 hours and 20 minutes. During the course of that time, dosimetric monitoring was conducted that confirmed the radiation safety of the work being conducted on the nuclear submarine and near it. After that, the radiation situation in the submarine and in the nearby area was studied in detail, the condition of the submarine's pressure hull, its structures, gear and equipment was inspected, the scale and nature of damage was precisely determined, and the sealing compounds were experimentally tested under natural conditions for their subsequent employment with the goal of reducing possible radiation leaks.

To do that, measurements by gamma-spectrometers have been conducted (690 spectrums have been recorded with a total time of measurement of 51 hours), 17 canisters with selective sorbents have been installed (after exposure for eight days, 14 were removed), nine water samples were taken in bathometers and 15 samples of bottom sediments by the soil samplers.

A ten-hour long video recording was made and 36 photographs were taken during the course of a visual inspection of the nuclear submarine's hull, especially detailed in its forward section, and also the internal areas of the first compartment through the damage in the pressure hull. Four containers with sealing polymer composites were also installed on the submarine and put into operation (of them two were brought to the surface and two were left for prolonged exposure), eight packages of "Voger" gel (of them, six were brought to the surface and two were left for prolonged exposure) and eight boxes with water-soluble films (all were brought to the surface). Besides what has been listed, a submarine inflatable salvage chamber (VSK), that is located on the bottom at a distance of approximately 700 meters from the nuclear submarine and where video recordings were also made, was checked. The FISH-103 GOK salvaged several objects from the submarine and they were tested.

In turn, NIS and OIS, besides supporting GOA operations, themselves took water and soil samples, trawled for biological objects, conducted hydrometeorological and oceanographic observations, and conducted a series of other work. We must point out that the accomplishment of the research program was significantly impeded by unfavorable weather conditions that are characteristic for this area during that period of time, and also by the

compressed time periods that had been allotted to accomplish the work. Under these conditions, the high professionalism of the GOA crews and the personnel that supported their operation was especially manifested: GOA Diving Leader Ye.S. Chernyayev, Divers L.G. Volchek, N.P. Petko, and G.Ya. Khlevnov, and also the GOA tug-vessel crew members.

The following personnel participated in the dives: GOA Commanders—Ye.S. Chernyayev (twice), V.A. Nishcheta (twice), N.L. Shashkov, A.A. Andreyev; Onboard Engineers—N.P. Petko, A.G. Blagodarev, D.V. Voytov, V.A. Kuzmin, I.V. Ponomarev, V.N. Byuryukov and, Observers-Researchers—M.V. Makarov (twice), N.A. Nosov, S.N. Forafonov, A.N. Umarov, and V.A. Samoylov.

Radiation Safety monitoring was precisely set up by Professor, Doctor of Medical Sciences, Colonel of the Medical Services I.V. Lisovskiy. Each time water and soil samples and instruments were brought on board, their painstaking examination for radioactivity was conducted by I.I. Andreyev from VNII EF (Arzamas-16) and Norwegian Expert N. Bemer. Each of them worked with their own equipment which excluded errors. In the process, N. Bemer participated in and was present during the conduct of all types of research on board NIS Akademik Mstislav Keldysh, was familiarized with the video recordings made during the dives, and he was also given samples of water and bottom sediments that had been raised by the Mir-1 GOA for subsequent exchange of results of their laboratory analysis. Not a single case of deviation from norms was recorded. During the preparation for one of the dives, N. Bemer asked to take on the GOA a highly accurate Norwegian instrument that is capable of integrating a gamma-radiation dose for all the time of the work near the side of the nuclear submarine. Although we had a quite sufficient number of such domestically-produced instruments in our collection, the Norwegian scientist's request was approved. This permitted N. Bemer to finally become convinced that the radiation situation on board the nuclear submarine and near it is normal.

The comprehensive underwater investigations of the Nuclear Submarine Komsomolets demonstrated that, in contrast to 1991, no substantial changes to the condition of the nuclear power plant have occurred. Once again, as in 1991, in accordance with theoretical predictions, anticipated small amounts of fission products (Cs-137) from the reactor that had entered the environment were recorded. The maximum concentration of Cs-137 recorded near the nuclear submarine was 180 Bk/cubic meter, and the average was approximately 30 Bk/cubic meter, that is quite a bit lower than the prescribed standard for drinking water (the standard for a Cs-137 radioactive nuclide is 370,000 Bk/cubic meter). Thus, at the present time the flow of radioactive nuclides from the nuclear submarine's reactor is not having a significant impact on the radiation-ecological situation that has developed in this area.

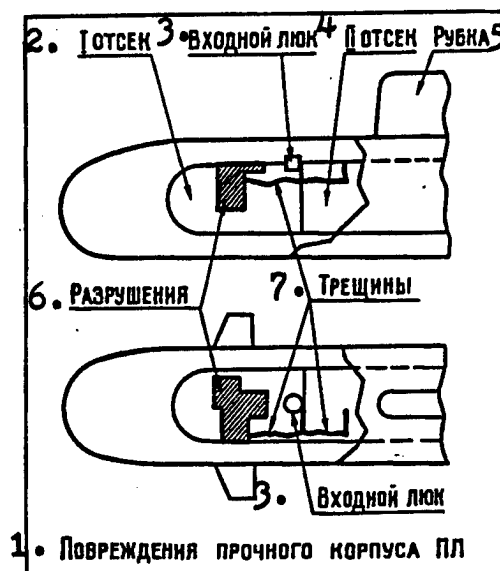
As a result of analyses of the samples of water, bottom sediments, and selective sorbents, there was no detection of the emission of plutonium from the nuclear munitions into the environment of the Nuclear Submarine Komsomolets in 1992. Moreover, local discontinuities of the distribution of radioactive nuclides in the bottom sediments, the origin of which we will have to clarify in further studies, are being observed in the extensive study of the area surrounding the Nuclear Submarine Komsomolets. However, concentrations of radioactive nuclides in these locations do not pose any ecological danger whatsoever at the present time.

The sum total of the studies that have been conducted confirm the preliminary assessments with regard to the possible nature and time periods of the beginning of the emission of plutonium from the nuclear munitions into the environment. The completed assessments indicate that the ecological consequences of the contamination of the environment with nuclear components (radioactive nuclides) will not be global or catastrophic in nature but can to a definite degree worsen it in the local area in several years. This circumstance requires painstaking surveillance in the area and timely completion of environmental protection measures.

The position and state of the Komsomolets in contrast to 1991 remain without visible changes. The previously obtained data on damage in the forward section of the pressure hull and the position of the forward doors of the torpedo tubes have been confirmed. Moreover, the acceleration of the corrosion of a torpedo with a conventional warhead in one of the torpedo tubes has been recorded and new data has been detected on the damage of the pressure hull in the area of the 1st and 2nd compartments, which turned out to be more extensive than was previously thought. The lengthwise cracks that have been detected in the forward section are significant in length and the existence of snapped frames of the pressure hull are significant. Video recordings have also been obtained of the area of the torpedo tubes' breech ends in the 1st compartment and it has been visually inspected and data on the extent of the damage in the upper section of the pressure hull of the 2nd compartment has been made more precise. Unfortunately, we did not manage to examine the position of the aft torpedo tube doors due to the compartment's large number of damaged parts.

Experiments with sealing substances demonstrated the capability of gel formation under natural conditions with the use of powder-like polymer composite No 2. The solubility of polymer films of formulas No 1 and No 2 were confirmed. However, continuation of their research under laboratory and natural conditions is required to more precisely determine their properties during prolonged operation and development of the sealing technology with their use.

What are the results of the expedition?



Key:

1. Damage to the submarine's pressure hull.
2. 1st compartment.
3. Entry hatch.
4. 2nd Compartment.
5. Conning tower.
6. Damage
7. Cracks.

First of all, we must say that our ideas on the actual state of the Nuclear Submarine Komsomolets' hull are substantially changing from expedition to expedition. During the first time after the accident, based on theoretical research and video photo materials obtained in 1989 using the Mir GOA and other underwater devices, scientists and experts had arrived at the conclusion that the submarine's pressure hull was intact and only the outer hull in its forward section had been subjected to damage. This was the initial situation during the development of proposals to salvage the nuclear submarine and even during development of the very project to salvage it. However, it had already been established during the course of the 1991 expedition that sections of the pressure hull in the upper portion of the 1st and 2nd compartments had been damaged. As a result of the painstaking study of these data, the experts began to express doubt in the advisability of work to salvage the nuclear submarine without additional investigations of the hull and structures. And the latest data have indicated that the damage of the pressure hull in the area between the 2nd and 8th frames, near the torpedo ammunition and in the area of the emergency-rescue buoy exceed those that we had managed to catch sight of previously. But the most substantial thing consists of the not previously detected lengthwise cracks that have been discovered in various (visible) locations which possibly represent a single major violation of the integrity of the

pressure hull in the area of the 1st and 2nd compartments. Therefore, a number of experts are inclined to think that they should not raise the submarine without a fundamental review of the project. In other words, we need to seek a technically more reliable and economically acceptable variation of working with it.

The experience of two of our comprehensive expeditions of the Nuclear Submarine Komsomolets confirms that work in the following directions should become their logical continuation:

First. Organization of maritime expeditions in the Norwegian Sea, similar to those conducted in 1991 and 1992, in the next few years with the goal of systematic monitoring of the development of the situation on the Nuclear Submarine Komsomolets for timely implementation of environmental protection measures and also the conduct of scientific-research and experimental-design work that encompass the issues associated not only directly with the Komsomolets but also with the further development of deep-sea ship and instrument building. Furthermore, the continuation of hydrometeorological, oceanographic, oceanologic, and other research in the Norwegian Sea, both in the interests of the work being conducted with the Nuclear Submarine Komsomolets and also for purposes of basic science and navigation, will have very important practical significance.

Second. The development of a special deep-sea system for surveillance of the radiation-ecological situation in the area of the nuclear submarine that can be employed in any other area of the World Ocean where radioactive objects are located that pose a danger. The time itself and the urgency of the ecological problem for the ocean environment dictate the need for its development. Work is already being conducted in this direction and if financed could be completed in the next 1-2 years. In the process, in our opinion, other states also can and need to be enlisted in its implementation.

Third. In our opinion, the following should be the priority directions in further work with the Nuclear Submarine Komsomolets:

- continuation of research to seal the hull or torpedo tubes to "bury" the sources of radioactive nuclides in the submarine's hull; and,
- a search for technically reliable and ecologically proven methods and techniques (technologies) to cut up and salvage the nose section of the nuclear submarine or only the torpedo tubes with the nuclear munitions that are in them with their subsequent destruction or burial.

Indeed, it is possible that a project that consists of various combinations of the proposed variations of work will arise as a result of subsequent searches that will turn out to be more realistic than those previously discussed. In the process, it's obvious that domestically-produced deep-sea devices of various designations will obtain

development that are capable, for example, of penetrating not only into the forward compartments but also into the aft section of the nuclear submarine where the key to the riddle of the cause of the outbreak of the fire and the entry of water into the submarine is obviously located.

So, it would be advisable to impart a more universal nature to the solution of the tasks associated with the Nuclear Submarine Komsomolets that is directed at the organization of global radiation-ecological monitoring of the ocean environment, the development of methodical and technical measures and technologies to localize radioactive (chemical and others) objects that pose a danger that are located on the sea bottom.

Footnotes

1. See MORSKOY SBORNIK, No 4, 1992.

COPYRIGHT: "Morskoy sbornik", 1993

Russian Committee on Pollution of World Ocean

93UM0668D Moscow MORSKOY SBORNIK
in Russian No 4, Apr 93 (Signed to press 26 Apr 1993)
p 75

[Unattributed article: "To Resolve the Problem of Pollution of the World Ocean"]

[Text] The Committee for the Conduct of Special Purpose Underwater Operations under the Russian Federation Government (KOPRON) was created by Russian Federation Presidential Edict No 1494 dated 30 November 1992. Russian Academy of Technological Sciences Corresponding-Member, Doctor of Technical Sciences, Captain 1st Rank Tengiz Borisov has been appointed its chairman.

This Edict has defined the following tasks for the Committee: resolution of the problems associated with preventing environmental disasters in the seas and other bodies of water; and, salvaging sunken military equipment, ammunition armed with toxic substances, and containers with radioactive wastes.

Vice Premier V. Shumeyko noted that work for the burial of the Nuclear Submarine Komsomolets will become the Committee's first task. In the words of Committee Chairman T. Borisov, the Committee will examine the three primary variations for realizing this task: to bury Komsomolets directly in the ground, having created a sealed sarcophagus; to dismember it and to raise it in pieces; and, finally, to extract only the warheads and the nuclear reactor. "In the process, the variation of sealing the nuclear submarine in the ground", noted Borisov, "appears to be the most realistic. Its development will be actively conducted and, upon completion of the project, will be transferred to an independent commission for an expert assessment."

On 8 March 1993, a Nuclear Submarine Komsomolets Fund (founded in December 1992) board session took place in Brussels under the chairmanship of Doctor Norbert Shmelzer—former Dutch minister of foreign affairs. The fund's goals is to study pollution of the seas and oceans, specifically, by radioactive elements, and assistance in the resolution of ecological problems.

Among those present at this session were: Academician I. Spasskiy (Fund vice president, "Rubin" NPO [Scientific Production Association] general director, Russia), Admiral of the Fleet I. Kapitanets (former Russian Federation Navy 1st deputy commander-in-chief), Yu.A. Kvitsinskiy (Extraordinary and Plenipotentiary Ambassador, former USSR first deputy minister of foreign affairs), Admiral Yu. Grishin (former deputy minister of foreign economic relations), F. Hauge (scientific director of the Norwegian "Bellona" Environmental Protection Movement), M. Basker (president of Smith International Company) and R. Praaning (Fund secretary general). Members of working groups also participated in the session.

The board discussed the reports of the fund's technical working groups that were officially handed to Hans van den Broek—special emissary of the European Community for Foreign Relations. Mr. Broek stated that the European Council is displaying great interest in the fund's activities and will assist its work with all possible measures. He hopes that the European Community, the United States, the Russian Federation and other countries will undertake joint efforts in order to resolve the problem of the serious threat to the ecology of the seas and oceans.

Imparting special significance to the work associated with the problems of sunken submarines that have nuclear components on board, the discharge of radioactive wastes into the seas and oceans, and also the burial of chemical weapons in them, the fund board developed a plan of actions in this direction. Specifically, it proposes carrying out an expedition to the Nuclear Submarine Komsomolets in 1993 to precisely determine the existing damage on it and the state of the environment in that area. The development of new technologies that will provide the capability to localize radioactive pollution, precise determination of the locations where various states have stored radioactive wastes, organization of periodic surveillance of the ecological situation in these areas, and also the conduct of research on the possibilities for the prolonged storage of chemical weapons are also planned.

The fund's board acknowledged that all nuclear powers are parties to this pollution of the seas and oceans and that it is necessary to find an overall solution of these problems.

COPYRIGHT: "Morskoy sbornik", 1993

Questioning the Need to Salvage the KOMSOMOLETS

93UM0668C Moscow MORSKOY SBORNIK
in Russian No 4, Apr 93 (Signed to press 26 Apr 1993)
pp 71-75

[Article by Navy GUK [Main Shipbuilding Directorate] Chief Rear-Admiral V. Bocharov and Candidate of Technical Sciences Captain 1st Rank V. Krapivin: "Do We Need To Salvage the Submarine?"]

[Text] As we know, the USSR Council of Ministers decision on salvaging the Nuclear Submarine Komsomolets was made in May 1990 based upon the results of the investigation of the circumstances of its loss and its realization was planned for 1992. "Rubin" Maritime Equipment Central Design Bureau (TsKB MT), the submarine's designer, was tasked with the functions of head organization and was called upon to coordinate all of the work to prepare to salvage the submarine.

Materials of the investigation of the nuclear submarine that was conducted in May 1989 and also the results of the work of the commission for the investigation of the causes and circumstances of the loss of the submarine were accepted as the primary initial data during the completion of all developments. The latter were reduced to the following:

- the submarine is located on a continental slope with an average steepness of approximately 1° to the north-east; the slope has nearly horizontal grades, on one of which lies the nuclear submarine which has sunk approximately 3-4 meters into the ground practically without trim (the density of the ground is 1.6-1.8 g/cm³);
- the nuclear reactor was shut down with all of the organic absorbents that ensures its nuclear safety during the course of an indeterminably prolonged period of time;
- while the Komsomolets sank to the bottom which, according to calculated data, lasted up to five minutes, the intake of water into its pressure hull occurred and caused the destruction of light structures and damage of the intercompartmental bulkhead section;
- it was calculated that: the tightness of the bulkheads between the 1st and 2nd, 3rd and 4th, and 5th and 6th compartments were lost and the rest remained intact as a result of the intake of water through the open bulkhead door between the 2nd and 3rd compartments and through the valves of the ventilation and other systems; the apparatus enclosures of the reactor compartment, the battery spaces and the various purpose tanks (trim, lubricating oil, reserves, etc.) were destroyed which, in sum, presumably entailed the warping of the flooring and the separation of small mechanisms and equipment from their seatings; it was assumed, first of all, that the submarine reached the ground with a small trim in the forward section

because most of the damage to the external outer hull was concentrated in the forward section and, second, the pressure hull was not damaged when the submarine hit the ground but from the damage to its internal hull structures (tanks and bulkheads) which were designed for significantly less pressure than the pressure hull; and,

- research has indicated that the cover of the 1st compartment's entry hatch and its coaming had been ripped off and lay on the superstructure, presumably, as a result of the hydrodynamic impact that arose during the destruction of the internal structures; as a result of the separation of the rescue chamber, it is open and there is access from the central post.

The summarized results of the developments for the burial of the nuclear submarine in the ground or its salvage consisted of the fact that:

- development, using engineering systems, of a man-made structure that seals for however long you'd like the Komsomolets that is lying on the ground is unrealistic;
- extraction of the nuclear munitions (YaBP) from the Nuclear Submarine Komsomolets cannot be ensured using systems that are available at the present time and their development requires the conduct of expensive work over the course of 5-6 years; furthermore, the nuclear and conventional ammunition and also the nuclear power plant do not pose a nuclear danger for however long a period of time;
- based upon the most conservative assessments of the "food (biological—the editor) chains", the existence of the nuclear submarine on the ground cannot result in the intake of radioactive nuclides into the organism of critical groups of the population in numbers that exceed 1% (strontium-90 and cesium-137) and 17% (plutonium-239) of the corresponding maximum permissible annual intake based upon the NRB-76/87 radiation safety standards that are in force in Russia and in accordance with the IAEA proposals for dosage load criteria for a man, the nuclear submarine falls under the category of sources that have been released from dosimetric monitoring;
- in the process of salvaging the Nuclear Submarine Komsomolets, during the adoption of the required measures, the intake of radioactive nuclides with seafood that is consumed by the population as food can total one thousandth or less of the permissible annual limit of their intake according to NRB-76/87;
- in the event that the Nuclear Submarine Komsomolets is salvaged, measures, that ensure, depending on the radioactive state of the nuclear submarine, either the preparation (total or partial) or the reliable burial of the submarine, can be carried out under a sufficiently complicated organization of work and definite material expenditures;

- development of the variations for transporting the Nuclear Submarine Komsomolets after it has been salvaged has determined the preferred variation—transportation of the submarine on a barge that has been installed on the boat slip-deck of a salvage-transport ship;

- the variation of the concluding stages of the work with the burial of the nuclear submarine along with the barge at the coastal burial site in the harbor of Novaya Zemlya's Chernyy Archipelago without unloading the reactor's core and munitions appears to be the most realistic based upon the aggregate of the factors that define the possible time periods, complexity and cost of the work, and the scale of the men and equipment involved.

And the last thing: the opinions of all concerned parties must be taken into account during the resolution of the international-legal issues of the Nuclear Submarine Komsomolets salvage operation.

Based upon the results of the research, the heads of the leading organizations of industry—participants in the work—have had their say about the safety of the entire complex of work, including salvage, transportation, and scrapping the Komsomolets, having confirmed the intentions that initially existed to salvage the submarine. However, doubts with regard to the safety of this responsible operation arise already during familiarization with the materials of the development and organization of the proposed salvage from which it follows that the discharge of radioactive elements into the ocean has not been excluded.

To understand the doubts that have been expressed, it is advisable to examine the state of the reactor core and the possible mechanism for carrying out radioactivity. In the event of loss of the seal of the nuclear power plant's 1st loop, and this is quite probable during the submarine's impact with the ground, approximate equality of pressure in the loop with that outside the loop, while considering the position of the nuclear submarine without a list or trim, totally excludes spontaneous movement of the control elements for no matter how long they are in this state. Corrosive destruction of the fissionable elements will obviously result in the scattering and localization of the products of corrosion in the bottom portion of the reactor vessel. Calculated assessments attest that the geometry and composition of the structural elements under the reactor core totally exclude the formation of a critical mass. Exit of long-life fission products to the space outside the submarine is possible only due to diffusion through leakage in the 1st loop and seal failure of the nuclear submarine's pressure hull. While considering the processes of sedimentation, with time practically all of the radioactive elements from the reactor will be concentrated within the submarine.

While the nuclear submarine is being salvaged, leakage from the 1st loop's heat exchanger under the impact of the expansion of a high pressure gas due to the reduction

of the outside pressure will be the primary factor that determines radiation contamination from the nuclear power plant. It has been calculated that by various paths (pipes, ventilation, opened bulkhead doors, entry hatches, etc.) the entire volume of water of the 1st loop will exit into the environment prior to a depth of 300-200 meters. A "simultaneous salvo" discharge of activity will occur (the time specification is tentative since they propose to conduct the salvage over the course of more than 10 hours). Therefore, the adoption of special measures to seal the pressure hull at lesser depths using divers will not result in the desired and, moreover, the requirement for the number of divers, work conditions and the system of support measures have not been defined. On the other hand, sealing at great depths, conducted with deep-sea devices, is equivalent for all variations of the continuation of work, including when leaving the nuclear submarine on the ground.

At the same time, the problem of ensuring nuclear safety, that is, the exclusion of an unsanctioned runaway of the reactor, is the central problem during the submarine salvage operation. Studies have shown that nuclear safety is totally ensured both in the event of the nuclear submarine's prolonged stay in a sunken state and in the event it is salvaged during the period until 1994 because the attachment of the supports of the compensating groups (KG) of reactivity will be weakened during the submarine's longer stay on the ground due to corrosion. In the event the submarine is salvaged later than this period and with the preservation of the seal of the 1st loop, the expansion of gas could tear off the attachment of the supports of the compensating groups, creating conditions for the violation of nuclear safety. The same thing could happen when the sunken submarine is in an inverted position (at an angle of more than 145°). Hence, the need for maximum care in the adoption of the decision on salvaging the Komsomolets because there should not be a change of the nuclear submarine's position or its repeat contact with the ground.

The nuclear warheads could become a second source of radiation danger on the submarine. Assessments of their state have indicated that there are no grounds to expect the discharge of plutonium—the primary component of nuclear munitions—during the course of the 4-5 years since the time of the disaster. Two models of possible processes contained a prediction for a more prolonged period:

- the "simultaneous" destruction of the localized jacket and a "salvo" discharge of radioactivity; or,
- the gradual development of the corrosive processes with the corresponding erosion of radioactive components.

However, in one or the other instance, the discharge of the products of corrosion is determined by the possibility of water exchange between the torpedo tubes and the external environment that is caused a drop of pressure in the nuclear submarine's hull and in the holes and

damage that exists in it. That period arises during the flow of a mass of water through the submarine with a flow. If, as we have calculated, the torpedo tube forward hatches are sealed, then such a water exchange is absent and the discharge of plutonium will be carried out by gravitational convection through ventilation apparatus pipes during an adequately prolonged period of time in the 1st compartment where it, like fission products from the reactor, will be buried in the muddy sediments.

So, information about the initial investigation of the state of the nuclear submarine's hull and specific information of its position on the bottom provided the grounds for preparations to salvage it. The Dutch Deep-sea Operations Consortium proposed cooperation on this issue to us and the technical plan was completed and we had also received a positive finding on the project from interested organizations of the former Ministry of the Shipbuilding Industry and the Navy at the beginning of 1991. The Dutch side agreed to assume the obligations to salvage the submarine under the condition of the signing of a primary contract, in accordance with which our side was tasked with the responsibility for nuclear and radiation safety. At the same time, during the discussion of research materials, the leaders of the interested ministries and departments recognized the need to conduct an additional investigation of the nuclear submarine on the ground.

The results of the first expedition are well known.¹ It was at that time that the damage to the forward section of the pressure hull (cracks) was detected and it was discovered that the torpedo tube forward hatches were slightly open. But because these facts did not receive a simple explanation, this circumstance, along with the need for an annual assessment of the radiation situation in the area of the disaster, served as the reason for the organization of the next expedition in 1992.

Conclusions on the results of the radiation study of the submarine and the adjacent area during the course of these two expeditions are unambiguous: the radiation situation in the area of the sunken submarine is normal; there are grounds to suggest that the 1st loop of the nuclear power plant is not sealed but that the discharge of radioactive nuclides from it is so small that it does not pose any danger whatsoever either for people or for the environment (the concentration of the isotope cesium-137 detected in the area of the reactor compartment—is within the limits of 8×10^{-12} Ki/l and does not exceed the average background figures for ocean waters). Moreover, the 1992 expedition discovered new data on the damage of the pressure hull. A transverse crack was discovered in it in the area of the intercompartmental bulkhead of the 1st and 2nd compartments along the left side, with a length of approximately two meters and an opening of up to 50 mm and also a long lengthwise crack along the left side that is approximately two meters above the waterline, with an opening of approximately 30 mm in the longest part of the length and up to 300-400 mm in some places with a length of 0.8-1.0 meters.

According to the experts, the causes of such major damage could be:

- a hydrodynamic impact within the nuclear submarine's pressure hull when the submarine made contact with the ground;
- an explosion of a gaseous air-chloro-hydrogen mixture that was formed in the 1st compartment when the batteries were flooded; or,
- an explosion of a part of the torpedo ammunition.

But the most important thing consists of the fact that the lengthwise crack along the left side may extend to the entire 2nd and to part of the 3rd compartment. At least, as of today, that has not been clarified and requires the conduct of additional investigations. However, even right now it's obvious that salvaging the nuclear submarine without fundamentally reworking the salvage plan is impossible. The operation could end in tragedy. For example, we know that in 1974 when the American Specialized Ship "Glomar Explorer" salvaged Soviet Diesel-Electric Submarine Design 629, that had sunk in the area of the Hawaiian Islands in 1968, it broke apart and the Americans salvaged only part of its hull.

However, we would like to stress the other aspect of the problem of salvaging the Komsomolets. Society's attention is primarily focusing only on the very fact of salvaging the submarine but the task is not exhausted with that. It shifts to another, no less complicated, sphere. The stages of transportation, scrapping and (or) burial must follow the salvage operation. Problems will only increase in each of them.

They plan to carry out the transportation of the nuclear submarine after salvage by locating it on a barge that has been installed on the boat slip-deck of a Dutch salvage-transport ship. Besides establishing the fact that such a barge that is capable of accommodating the Komsomolets intact does not yet exist, a number of questions still arises. How will this complex structure behave under storm conditions? Is a repeat sinking of the nuclear submarine possible in transit? Will the discharge of radioactivity into the environment be excluded? At the present time, there are no answers that have been confirmed by calculations and critical analysis. The two following possible variations of work are being examined:

- decontamination, study of the submarine, unloading the ammunition, unloading the reactor core or preservation of the 1st loop, cutting out the reactor compartment, preparation of that compartment or the nuclear submarine as a whole for placement on a craft, preparation of the ends on transportable units for shipment to a ship salvaging facility; or,
- burial of the reactor compartment in a storage area or burial of the nuclear submarine whole with the unloaded reactor core.

The measures that ensure the accomplishment of the listed work must be developed prior to the initiation of the Komsomolets salvage operation and must include structural, technological and material-technical preparation of production; capital construction or reequipping of areas to accomplish the work and also the appropriate organizational measures.

While considering the ambiguity of possible situations on the state of the radiation situation on the nuclear submarine, it was considered that the listed measures had to be developed for all variations of work.

We can judge the scale of work according to the first variation by one operation alone. For example, for decontamination, filling the entire internal space of the nuclear submarine with a liquid mixture three times will be required with its subsequent pumping into special tanks (barges) with a total volume of 13,000 m³. However, that is not all. Manual work, the conduct of which, according to the assessments of individual experts, will require the involvement of several tens of thousands of people and that is without considering maintenance personnel, divers, and ship, supply and support crews, etc., will also be required for the removal of the remaining contamination. Therefore, returning to the actual capabilities, we will receive as a result that the Komsomolets salvage operation will be reduced to moving the submarine from the bottom of the Norwegian Sea to one of the bays of the Barents Sea where it will wait for a prolonged period of time for construction of capital burial facilities and where, in the process, it will become more dangerous in a radioactive sense.

The proposed salvage of the submarine is associated by certain experts not only with the elimination of a possible source of radioactive contamination but also with establishing the cause of the accident that resulted in the loss of the submarine. Despite definite interest in that issue, the answer to it will hardly be found during the salvage operation since identification of the source of combustion in the compartment where a fire of great intensity raged under high pressure for several hours is improbable.

And now let's dwell on certain statistical data because the examined aspects of risk and the proposed expenditures associated with salvaging the submarine force us to look at the fact of its prolonged presence on the ground in the context of the overall state of the radiation situation in the ocean. We know that the total activity of radioactive nuclides in the World Ocean is:

- natural radioactive nuclides in a maritime environment— 5×10^{11} Ki;
- natural radioactive nuclides in a 200-meter layer of the bottom sediments in the ocean— 3×10^{12} Ki;
- radioactive fallout after nuclear explosions— 3×10^8 Ki; and,
- nuclear industry discharges— 1×10^6 Ki.

Now separately for plutonium. The press widely covered the fact of the discharge of highly radioactive wastes of a nuclear fuel reprocessing plant at Winscales [transliterated] (Great Britain) into the waters of the Irish Sea during the period of 1971-1986. By 1986, approximately 2×10^4 Ki of plutonium had been discharged here. And if you allow that all of the plutonium in the amount of 500 Ki (two YaBP [nuclear warheads]) that is on board the Nuclear Submarine Komsomolets will end up in the ocean, it will total approximately 2% of the discharges into the Irish Sea and a quite small amount of global pollution as a result of nuclear explosions and nuclear industry discharges.

According to expert assessments, just sealing the Komsomolets' forward torpedo tube hatches will permit a reduction of the speed of the discharge of plutonium by approximately 50 times per year. As a result, it would be appropriate to note that the experimental verification of sealing compounds under natural conditions was conducted during the 1992 expedition for their subsequent utilization to substantially reduce radioactive leaks. On the whole the tests proceeded successfully and, based upon their results, they arrived at the conclusion on the advisability of continuing research of the polymer powder composition of the soluble films and bringing them to the level of presented requirements and development of sealing technology.

Furthermore, we must not forget that, besides the Komsomolets, as of today four other nuclear submarines lie on the bottom—two of ours (K-8 and K-219) and two American (Thresher and Scorpion). But sunken nuclear weapons are not only on board submarines. For example, in 1957 a U.S. Air Force aircraft dropped two hydrogen bombs into the Atlantic after engine failure and a year later another American aircraft lost an atomic bomb over the Pacific Ocean. In 1965, a fighter-bomber with an atomic bomb fell into the sea during takeoff from an American aircraft carrier south of Okinawa.

As a result, maybe the time has come to carry out global radiation-ecological monitoring of the ocean environment and development of methodical and technical measures to localize radiation-danger objects that are on the sea bottom under the patronage of some international organizations or other.

As a result, we can formulate the following conclusions:

- at the present time, the radiation situation in the area of the sunken Nuclear Submarine Komsomolets is normal and the level of radioactivity does not exceed the average background figures for ocean waters;
- the nuclear and conventional ammunition and also the nuclear power plant do not pose an explosive danger or nuclear danger for however prolonged a period of time the Nuclear Submarine Komsomolets is on the bottom;

—during the prolonged presence of the submarine on the bottom, the discharge of radioactive products of corrosion into the environment may be reduced by several orders of magnitude by sealing existing openings in the pressure hull, first of all, the forward torpedo tube hatches;

—the 1991 and 1992 expeditions to the sunken submarine revealed significant damage in the nose section of its pressure hull, as a result of which the Komsomolets salvage project needs, at least, radical reworking; moreover, the uncertainty of the state of the hull will be preserved all of the time because the submarine has sunk approximately 3-4 meters into the ground;

—salvaging the Nuclear Submarine Komsomolets after 1994 will appear to be potentially dangerous from the point of view of the operation's nuclear safety; and,

—in the event it is salvaged, plans have not been completed for work with the Nuclear Submarine Komsomolets after its delivery to one of the areas of the Kola Peninsula.

While proceeding from what has been set forth above, we can arrive at one common conclusion: it is advisable to reorient the work being conducted on the Nuclear Submarine Komsomolets to sealing its pressure hull with monitoring, as needed, the effectiveness of this work.

Footnotes

1. See MORSKOY SBORNIK, No 4, 1992.

COPYRIGHT: "Morskoy sbornik", 1993

Northern Fleet: Maintenance Problems

93UM0713A Moscow TRUD in Russian 15 Jun 93 p 2

[Article by TRUD Correspondent Dmitriy Struzhentsov, St. Petersburg: "The Cruiser Is Laid Up: How the Russian Navy Has Found Itself 'High and Dry'"]

[Text] I remember how until quite recently an unusual enormous ship—the Ural Command Measurement Complex—was near Baltiyskiy Plant's outfitting quay. This floating military computer center was developed for many years in a situation of total secrecy. Certainly even today far from everyone can freely talk about it because its filling is the "expert-level advanced aerobatic maneuvers" of military-engineering thought. There is no other such ship in the Navy. It is still very young, it is a bit more than two years old, but it is already "laid up". It can't put to sea even though it should still be able to sail for decades... But there are no trained replacement seamen for the Ural, just like there is no facility for its skilled servicing. This is not simply a "floating vessel" but the most complex modern command-measurement complex that requires the constant attention of highly-skilled professional specialists. Without them, Ural is like a sailboat without a rudder or sails.

Of the five Kiev Class heavy aircraft-carrying cruisers that were developed by Nikolayev shipbuilders, right now one and, at best, two can put to sea. Strictly speaking, only Kuznetsov in the Northern Fleet is in the combat ranks today and its fate is unenviable. The officers live dozens of kilometers from the ship and they carry water, food, and fuel oil to the cruiser... The first-born of our aircraft carriers—the cruiser Kiev, having arrived in the Northern Fleet in 1975, has already not put to sea for five years. Kirov Class nuclear cruisers (currently it is Ushakov) have also become “disabled” ahead of schedule...

Our conversation with Brigade Commander and Able Seaman V. Kolesnik began with that. He is currently involved with training crews for naval ships that are being built at St. Petersburg’s wharves. He has served many years on ships in the Northern Fleet, including on nuclear cruisers, and he participated in the testing of the aircraft carrying cruiser Kuznetsov in the Black Sea.

“I have become convinced,” said Kolesnik, “that our specialists make marvelous ships that do not lag behind the ships of the major naval powers. But their operation cannot withstand criticism and the maintenance does not in any way compare with how the Americans or the English protect their navies. World naval experience already long ago developed this tradition: a ship is developed—and all of the issues of its support and basing are resolved simultaneously and comprehensively.

Why are our heavy nuclear cruisers “laid up”? Well because they are not being repaired on time. There aren’t enough berths. And ships frequently are on the roadstead with operating mechanisms and are expending engine service life. In the good navies: a ship has arrived at its base—they moor it to the berth, and supply electricity, steam, water, and heat to it from the shore... But in our country, large ships are off shore like they are on an endurance cruise in the Northern, yes, and in the Pacific fleets. Of course, equipment will not last long under such operation.

When there are no reliable bases, repair is needed more frequently. But, having departed our native walls, it’s as if a ship “tears off the umbilical cord”. Now it will be serviced at military repair plants at which there is neither equipment, specialists of the proper class, or resources to do that. The repair plants of that same Northern Fleet have been transformed into ship “cemeteries”: it is simpler to dismantle some assemblies or others than to assemble them. And these are not elderly beauties still waiting for their “witching hour” when lads armed with loaded gas or electric cutting torches will come on board. Although they could still sail and sail under normal operation.

Shipbuilding plants must be responsible for the entire life cycle of their brainchildren. In our country, all of the large ships—aircraft carrying and nuclear cruisers—in general do not undergo either medium repair or major

overhaul. Nikolayev—is a city that is already not Russian and they will hardly repair what was built here but that is already “foreign”. At Baltiyskiy Plant in St. Petersburg, entry of cruisers with nuclear power plants, as they say, has been ordered. Meanwhile, the first-born of the nuclear surface fleet the cruiser Kirov has been maintained without repair for already 13 years! It’s clear that it will not be able to put to sea for a long time.

Here’s a curious comparison. At that same Baltiyskiy Plant that built heavy nuclear cruisers and developed practically all of the nuclear icebreakers. And all of them without exception are currently afloat, shatter ice of the Northern Sea Route, and escort ship convoys along it. But cruisers that were built significantly later than the first nuclear icebreakers are already “dead”. Although the workload on the icebreakers is incomparably heavier in the northern latitudes. They have not an ideal but still a permanent and reliable facility at the port of registry—Murmansk.

And one more very important circumstance—the professionalism of the seamen. There is practically no crew rotation on the nuclear icebreakers. The crew at its foundation—is a contemporary of the ship and the ship has become a second home to it. Here are specialists of the highest class and they know not nuclear icebreakers in general but their own specific or, more precisely, that assembly or compartment of the ship where they perform their duties.

But what occurs with seamen of naval ships? The crew, formed from the most experienced seamen-specialists, arrives in St. Petersburg approximately 3-4 months prior to the initiation of a new ship’s sea trials. They work onboard along with the shipbuilders and they live here prior to the initiation of testing. The crew learns the ship and the specific features of its systems, weaponry, and assemblies. “Sea trials” are an examination not only for the ship but also for its crew. Here everything occurs according to the complete program—from loading food to live firing. Later the seamen are sent along with the ship to its permanent basing location.

And a couple of years later none of the old seamen remain on the new ship, they have to train, so to speak, the new recruits on the combat equipment. That’s nothing for them but it’s very hard on the equipment. Here’s hoping they don’t have to repair a serious malfunction using their own resources—God forbid that something that is still intact on the ship breaks or malfunctions.

All of us have reconciled ourselves with the absolutely rash system for creating the navy, disregarding the world experience of a comprehensive approach to the problem. Right now a state program for developing the Russian Navy is needed without which our great naval power cannot be that.

CIS: REAR SERVICES, SUPPORT ISSUES

Russian OSTO's Rescue Organization

93UM0684A Moscow VOYENNYE ZNANIYA
in Russian No 1, Jan 93 pp 2-3

[Interview with Russian OSTO [Defense Technical-Sports Organization] rescue chief Captain 2nd Rank V. Yevstigneyev by correspondent U. Savitskiy under the rubric "Interview for the Issue": "Were a Misfortune to Occur"]

[Text] *The Decree "The Creation of Rescue Formations of the RSFSR OSTO" was adopted at an expanded session of the Board of the Council of the Russian Defense Technical-Sports Organization [ROSTO] on 24 Dec 91.*

A year has passed. What has been done over that time, what problems and difficulties have the officials of the defense technical-sports organizations encountered at the local level?

You will find answers to these and other questions in a discussion by our correspondent U. Savitskiy with Captain 2nd Rank V. Yevstigneyev, chief of the group of rescue formations of the ROSTO Council.

[U. Savitskiy] The reforms and transformations that are underway in the country, as is well known, have not bypassed your organization either. It was registered with the RF Ministry of Justice in the fall of 1991, after re-organization, as the Russian Defense Technical-Sports Organization (ROSTO), becoming the legal successor to DOSAAF on the territory of Russia. Have new directions appeared in your work in this regard?

[V. Yevstigneyev] The patriotic indoctrination of workers and youth, their training to protect the Fatherland and the development of technical types of sports and technical creativity have all been, and remain, fundamental.

ROSTO training organizations have trained about one million specialists in 77 fields with applied military significance over the year. There were 2,770 draftees just for service in the GO [civil-defense] troops in three military-accounting specialties in particular.

The former organizations of DOSAAF, and today ROSTO, have long and well-established ties with GO bodies. The training of the population for actions in emergency situations is a task of great social significance. We have concluded that it is now insufficient for the organizations of ROSTO to restrict their activity to the dissemination of knowledge on civil defense and participation in its activities. We have to move to more vigorous forms of work.

The Association of Rescue Formations (ASF) of the RSFSR, of which ROSTO was a co-founder, was created at a founding congress on 18 Oct 91. Our organization

simultaneously became the co-founder of the "Zashchita" Russian Public-State Fund under the State Committee of the RF for Issues of Civil Defense, States of Emergency and Dealing With the Consequences of Natural Disasters.

[U. Savitskiy] Along what lines do ROSTO and the Committee interact?

[V. Yevstigneyev] The following basic directions, in my opinion—and coinciding with the opinion of the leadership of the Committee—are advisable:

- joint work in the area of propagandizing questions of fighting emergencies and preparing the population for actions against them;
- the training of the draft contingent for service in the GO troops and the performance of alternative service in militarized and non-militarized formations of the Russian systems for preventing, and for actions in, emergency situations;
- the employment of aviation-training and sport-aviation organizations of ROSTO for aerial reconnaissance in disaster areas, and the delivery (airdrop) of the most important, small freight and rescuers in them;
- the purposeful training of the specialists in applied-military fields necessary for dealing with the consequences of emergency situations; drivers of transport vehicles, parachutists, radio specialists, frogmen and dog trainers, among others.

Taking into account the increasing role of ROSTO organizations in dealing with the consequences of emergency situations, a decree of the expanded session of the Board of the Council of the Russian Defense Technical-Sports Organization has recommended to all OSTO councils that they create volunteer rescue formations (SF) using their own manpower and resources in 1992-93.

[U. Savitskiy] What is a volunteer SF, and what is the procedure for its creation?

[V. Yevstigneyev] The standard statute for a rescue formation of the Russian OSTO that is part of the Association of Rescue Formations of the RF defines that a volunteer SF is a detachment, composite detachment or group that is the primary and basic level of rescue formations, an association of the members of OSTO who have expressed their desire to make a contribution to the performance of patriotic and humanitarian tasks—dealing with the consequences of emergency situations, and assisting those stricken as the result of accidents, catastrophes and natural disasters.

The procedure for the creation and registration of an SF is defined by the requirements of the Charter of the Association of Rescue Formations and the Standard Charter for a Rescue Formation of the ROSTO, and is accomplished in accordance with legislation. The rescue

formations are detachments or groups, as a rule created under the oblast, kray or republic councils of the ROSTO to aid local committees for emergency situations and operating according to their instructions.

[U. Savitskiy] Who can become a member of a rescue formation, and how?

[V. Yevstigneyev] Individuals who have reached 18 years of age, are physically fit and have the necessary training to perform rescue operations in emergency situations may join the volunteer SFs.

[U. Savitskiy] How is the material and technical base for the rescue formations created?

[V. Yevstigneyev] The manpower of our organizations, as you know, has always been involved on the scene in dealing with the consequences of emergencies. There are training and sports organizations with a good material and technical base, after all, in virtually all of the oblast councils of the ROSTO. This includes the aircraft and helicopters of the ROSTO air clubs. The truck schools that train specialists for the armed forces have their own motor vehicles. The naval schools where specialists are trained for the Navy have small craft, sloops and diving equipment. The radio schools have fixed and mobile communications gear. It was thus resolved to create small, mobile rescue groups of various types on the basis of available equipment and the involvement of the organic personnel of our training institutions and sports organizations.

[U. Savitskiy] Can you tell us about them in more detail?

[V. Yevstigneyev] Certainly. The **air-mobile** groups are being created on the basis of the air clubs and aviation-training organizations of ROSTO, for reconnaissance of the areas of disasters, delivery of rescue formations and small freights to hard-to-reach places and the provision of medical aid and evacuation for the stricken.

The **air-drop** groups are being formed from among the higher categories of parachutists in virtually all areas of Russia. The groups are made up of sport, assault and rescue parachutists, but have not been trained for operations as rescuers. The corresponding additional training for them is essential.

The **motor-transport** groups are being formed on the basis of the trucking and technical schools of ROSTO in virtually all of the republic, kray and oblast councils of the OSTO of Russia.

The **radio operators** are being created on the basis of the radio schools of ROSTO and the collective amateur radio organizations for work in disaster areas. They can be utilized to coordinate the activity of SFs, provide information on the course of air-rescue operations, aid in finding the relatives of the stricken and establish international contacts.

The **underwater technical operations, diving gear and diver** groups are being created to perform operations in

floods, accidents at hydropower facilities, river and sea catastrophes and to deal with the consequences of typhoons and tsunamis. Higher-level instructor divers and sport divers in underwater sports who are working at the ROSTO naval schools, technical-sports clubs, detachments and frogman schools are being brought in for this purpose. I would note that the Voronezh Naval School of the OSTO of Russia trains frogmen from 3rd to 1st class for all ministries and agencies of the country.

Electric-power supply—mobile groups are being created on the basis of the naval schools, and have portable electric-power plants. They can provide for the feed of electric power to perform emergency-rescue operations and illuminate disaster areas.

The **medical** groups render first aid before the arrival of physicians at the scene of an accident, gather and deliver information to the triage stations, and care for the injured and sick at treatment facilities.

[U. Savitskiy] And why don't you say a word about the dog-trainer rescue personnel?

[V. Yevstigneyev] We do not have any dog trainers. And that is despite the fact that ROSTO has hundreds of clubs for official dog breeding that have trained quite a few dog trainers, and have delivered thousands of our four-legged friends to the armed forces and the national economy. The question of training dog-handling rescue personnel to search for people in rubble with the aid of specially trained dogs is currently in the study stage, and will be resolved with the corresponding financing.

[U. Savitskiy] How many rescue groups are planned on the territory of Russia in all, and where do the ROSTO officials come from?

[V. Yevstigneyev] I would especially like to emphasize that non-regular SFs have not been created under directive procedure. The OSTO councils, proceeding from the local capabilities, have independently determined what rescue groups they can form.

The creation of 322 voluntary rescue formations in all 77 ROSTO territorial councils based on the existing manpower and resources in nine regions of Russia is planned. We are not making it our aim therein to have large SFs, but are rather wagering on small but effective and narrowly specialized groups.

The availability of such groups makes it possible to maneuver them flexibly, and create where necessary a composite detachment with a definite purpose depending on the nature of the emergency situations that arise.

[U. Savitskiy] Could you give some concrete examples testifying to the effectiveness and necessity of the work of the rescuers?

[V. Yevstigneyev] Some 206 rescue groups of various types had been created by 49 territorial councils of ROSTO by the end of last year, and the coordination of

their activity had been worked out. Some SFs of our training organizations have already shown themselves pretty well in practice. A rescue detachment that is training at the Nelidovskaya Technical School took part in dealing with the consequences of the Riga-Moscow train crash that occurred in March of 1992. They were at the scene of the catastrophe just 57 minutes after notification. They pulled apart the railcars and aided the stricken.

A motor-transport group of the oblast OSTO council consisting of 20 trucks was activated to carry people, as well as livestock, out of a flood zone from 25 Aug through 14 Oct of last year in the Jewish Autonomous Oblast.

A motor-transport group of the Tuvinsk Republic OSTO council took part in dealing with an emergency caused by a yak plague in March of 1992.

A group of the republic OSTO in Chechen-Ingushetia conducted aerial reconnaissance of landslides in April of last year.

An Mi-2 helicopter from the oblast OSTO club removed 24 fishermen from a broken-off ice floe in Novosibirsk Oblast.

That is a far from complete listing of the good deeds.

[U. Savitskiy] You are doing work of state importance. Are the workers of the local administrative bodies helping and supporting you?

[V. Yevstigneyev] Most often, yes. There are, unfortunately also instances of a negative attitude toward the intention to create volunteer rescue formations. The head of the administration in Ivanovo Oblast has recommended to the oblast OSTO council that more attention be devoted to the indoctrination of adolescent youth, rather than being occupied with rescue formations. They are not needed in Ivanovo Oblast, in his opinion.

A negative attitude toward public organizations, and the ROSTO in particular, on the plane of the creation of rescue formations is also displayed at some of the civil-defense headquarters and territorial commissions for emergency situations. They sometimes refuse registration, doubting their expediency. That is even though Decree No. 261 of the Government of the RF of 18 Apr 92 and the Statute on the Russian System of Prevention and Actions in Emergency Situations have defined the participation of public organizations in activities to protect the population and the national economy. Our organizations are moreover entrusted with performing essential work among their own members and the population, as well as direct participation in the implementation of dedicated state programs to prevent various disasters.

[U. Savitskiy] On whom and on what, in your opinion, does the emergence and further development of ROSTO rescue formations depend?

[V. Yevstigneyev] First and foremost on us. Our rescue groups, after all, are made up of regular specialists who do not have special knowledge in the realm of rescue affairs, and many do not have the necessary medical training either. They also do not have specialized rescue matériel. These issues are facing our training organizations quite keenly. The creation and development of SFs, after all, is planned using the manpower and resources of the OSTO councils, donated by various organizations or special funds of the local budgets. But God helps those who help themselves, as they say. We have recommended that the rescue formations develop various types of commercial activity. Commercial structures should be created under the ROSTO SFs that will be able to produce rescue equipment and gear and offer services to the population. The money they receive could be used for the emergence and further development of rescue formations. It is desirable that those structures be granted tax concessions etc.

[U. Savitskiy] What would you like to say in conclusion of our discussion?

[V. Yevstigneyev] We will have to establish closer business interaction among our OSTO councils and the territorial committees for emergency situations in the near future. We will indeed strive to do so.

COPYRIGHT: Izdatelstvo TsS SOSTO SNG "Patriot", "Voyennyye znaniya", 1993

Civil Defense Agencies, Functions

93UM0684B Moscow VOYENNNYYE ZNANIYA
in Russian No 1, Jan 93 pp 18-19

[Unattributed listing under the rubric "Official Department"]

[Text] *We will publish, starting with this issue, official information on the decisions of the President and Government of Russia on questions of dealing with and preventing emergency situations and the everyday activity of the State Committee of the RF [Russian Federation] on Issues of GO [Civil Defense], States of Emergency and Dealing With the Consequences of Natural Disasters, as well as the work of the SOSTO [Council of the Defense Technical-Sports Organization] of the CIS and the OSTO [Defense Technical-Sports Organization] of Russia, and the directive, standard and other documents as adopted by them.*

State Committee of the Russian Federation on Issues of Civil Defense, States of Emergency and Dealing With the Consequences of Natural Disasters

Committee Chairman—Sergey Kuzhugetovich Shoygu

First Deputy Committee Chairman—Yuriy Leonidovich Vorobyev

Committee Deputy Chairman—Vyacheslav Vladimirovich Benkevich

Committee Deputy Chairman—Viktor Alekseyevich Vladimirov

Committee Deputy Chairman—Boris Vasilyevich Shamov

Head of the Secretariat—Aleksandr Isaakovich Psakhye; tel. 923-89-29

Chief of the Cadres Department—Aleksandr Petrovich Khomenko

Chief of the Inspectorate—Sergey Mikhaylovich Kudinov

Supplement to the Decree of the Government of the Russian Federation of 18 Apr 92

Functions of the State Administrative Bodies of the Russian Federation for Preventing and Dealing With Emergency Situations¹

Minstroy [Ministry of Construction] of Russia

The development of methods of design engineering, construction and maintenance of facilities in regions with extreme conditions, methods and means of studying, evaluating and forecasting hazardous natural and man-made processes, the development of new methods of engineering protection for territories and the improvement of existing ones.

Standards support for construction and engineering protection of national-economic facilities under extreme conditions.

Supervision of the creation and functioning of subsystems of the Russian system of emergency situations, which is entrusted with the protection of cities and populated areas against the effects of hazardous natural and man-made processes.

The development of methodology for performing calculations of damages and the requirements for material and technical resources in the performance of rescue and emergency-restoration work when dealing with emergency situations.

MVD [Ministry of Internal Affairs] of Russia

Maintenance of the social order and protection of the material and cultural values in emergency situations.

Extinguishing of fires and performance of urgent emergency-rescue operations in emergency situations.

Supervision of the creation and functioning of subsystems of the firefighting and emergency-rescue operations of the Russian system of prevention and operations in emergency situations.

MB [Ministry of Security] of Russia

Information on the possible preconditions and nature of emergency situations, their causes, and the plans, intentions and concrete actions of criminal groups and individuals for the intentional creation of emergency situations for the State Committee of the Russian Federation on Issues of Civil Defense, States of Emergency and Dealing With the Consequences of Natural Disasters and the heads of territorial, functional and departmental subsystems of the Russian system for prevention and actions in emergency situations.

Activities to ensure state security under conditions of states of emergency, including at facilities with special regimens and in areas closed to the settlement of foreigners, as well as in assisting foreign states in dealing with the consequences of emergency situations in the Russian Federation.

Participation where necessary of special manpower and resources of security bodies in work to deal with emergency situations, including situations created as the result of the actions of terrorists and other extremist elements.

Minzdrav [Ministry of Health] of Russia

Supervision of the creation and functioning of the subsystem (service) of emergency medical care in emergency situations of the Russian system for prevention and actions in emergency situations.

Organization of work to provide emergency medical care in areas with emergency situations.

Creation of reserves of medical matériel and medicines to eliminate emergency situations.

MID [Ministry of Foreign Affairs] of Russia

Assistance in the development of international ties in the realm of preventing and eliminating emergency situations, mutual assistance in emergencies, catastrophes and natural disasters.

Minnauki [Ministry of Science] of Russia

Organization of scientific research in the interests of improving and developing the Russian system for prevention and actions in emergency situations, coordination and state assistance in the performance of that research.

Organization of training of specialist personnel for the Russian system for prevention and actions in emergency situations.

Minenergo [Ministry of Energy] of Russia and Minatom [Ministry of Nuclear Power] of Russia

Organization of observation and monitoring of the situation at potentially dangerous facilities and the territories adjoining them.

Performance of measures to avert or deal with the consequences of emergencies and catastrophes at facilities of the ministries.

Coordination of work to locate the facilities of the ministries with a regard for industrial and ecological safety.

Participation in the performance of emergency-rescue and other urgent work using the manpower of departmental and professional emergency-rescue subdivisions that are part of the Russian system for prevention and actions in emergency situations.

Supervision of the creation and functioning of the corresponding departmental subsystems of the Russian system for prevention and actions in emergency situations.

Ministry of Agriculture and Food of the RF

Performance of activities to prevent and deal with the consequences of emergencies and catastrophes at facilities of the ministry.

Organization and coordination of work to monitor the contamination of agricultural lands with radioactive substances and heavy metals. Support for the efficient conduct of agricultural production on contaminated territories.

Organization and coordination of work for epizootical, phytopathological and toxicological monitoring and dealing with epizootic and epiphytotic outbreaks.

Providing for the prompt receipt, processing and issue of the information necessary to agricultural production for the evaluation of emergency situations of a natural and ecological nature.

Mintorgresurs [Ministry of Trade Resources] of Russia, Minekonomiki [Ministry of Economics] of Russia, Minfin [Ministry of Finance] of Russia, Mintrud [Ministry of Labor] of Russia and Committee of the RF on State Reserves

Coordination of work to locate national-economic facilities on the territory of the Russian Federation with a regard for the requirements of industrial and ecological security (Minekonomiki of Russia).

Provision of financing for work to prevent and deal with emergency situations and to assist the stricken population.

Creation of insurance and reserve funds and stockpiles of matériel necessary for dealing with emergency situations.

Organization of the provision of the stricken population with goods of prime necessity.

Supervision of the creation and functioning of subsystems of the corresponding emergency reserve funds of the Russian system for prevention and actions in emergency situations.

Mintrans [Ministry of Transportation] of Russia

Organization and performance of activities to prevent and deal with the consequences of emergencies and catastrophes in transport.

Support for the movement of manpower, resources and logistical resources necessary for the performance of work to deal with emergency situations, and the performance of evacuation activities.

Participation of the manpower of departmental formations, within the limits of their technical capabilities, in the performance of emergency-rescue, emergency-repair and other urgent work in areas with emergency situations.

Supervision of the creation and functioning of the departmental subsystem of the Russian system for prevention and actions in emergency situations.

Ministry for the Protection of the Environment and Natural Resources of the RF

Forecasting of dangerous hydrometeorological and other natural phenomena, a high level of contamination of the environment and the scope of emergency situations connected with it.

Monitoring of the ecological situation in the republic, and the planning and implementation of measures to improve it.

Methodological guidance for operations to deal with ecological emergency situations.

Prompt monitoring and precise measurement of radioactive and chemical contamination caused by emergencies and catastrophes.

Forecasting of the possibility of the outbreak of emergency situations in the forests of the republic, and organization and performance of activities to prevent or deal with them.

Offering of hydrometeorological and helio-geophysical information and data on the levels of contamination of the natural environment to management bodies of the Russian system for prevention and actions in emergency situations.

Supervision of the creation and functioning of the corresponding functional subsystems for the observation and monitoring of the Russian system for prevention and actions in emergency situations.

Federal Service of Russia for Oversight of Nuclear and Radiation Safety, Federal Service of Russia for Oversight of Safe Working Practices in Industry and Mining Oversight, Committee of the RF for Sanitary and Epidemiological Oversight

Organization and performance of activities to prevent or deal with the consequences of emergency situations at facilities of the departmental subsystem.

Support for the participation of specialized construction, installation and planning organizations in the performance of emergency-repair operations in areas of emergency situations.

Participation in the activity of state administrative bodies for the creation of financial, material and technical resources necessary for the performance of preventive activities, maintenance and support of emergency-rescue and emergency-repair formations and dealing with the consequences of emergency situations.

Interaction with state administrative bodies in their organization and performance of emergency-rescue, emergency-repair and other urgent operations in areas of emergency situations.

Footnote

1. The names of the ministries and departments are cited here in accordance with Edict No. 1148 of the President of the Russian Federation of 30 Sep 92, "The Structure of the Central Bodies of Federal Executive Authority."

COPYRIGHT: Izdatelstvo TsS SOSTO SNG "Patriot", "Voyennyye znaniya", 1993

Chief of Central Airmobile Rescue Detachment on Structure, Duties

93UM0693A Moscow VOYENNYE ZNANIYA
in Russian No 2, Feb 93 (Signed to press 10 Jan 93)
pp 20-21

[Interview with State Central Airmobile Rescue Detachment Chief Mikhail Ivanovich Faleyev by VOYENNYE ZNANIYA Correspondent B. Belov: "State Central Airmobile"]

[Text] The State Central Airmobile Detachment was created in accordance with Russian Federation Government Decree No 154, dated 13 March 1992. This is the first and, as of today, the only rescue formation in our country that consists of highly-skilled professionals. They have already convincingly proven that they know their business well and that they know how to operate under the most difficult conditions.

We invite our readers' attention to our Correspondent B. Belov's interview with Detachment Chief M.I. Faleyev.

[Belov] Mikhail Ivanovich, since they entrusted you to head such a specific structural subunit, obviously you have had some sort of relationship with the rescue business?

[Faleyev] Never. I graduated from Moscow Aviation Institute and, not that long ago, the Russia Academy of Management where I received my political science diploma. I am entering my new post in the role of an organizer. And along with my subordinates, I comprehend the intricacies of the rescue business. A person who does not have an understanding of music cannot be the conductor of an orchestra. And rescuers cannot be led by a randomly selected individual. All the more so that we accomplish complicated, sometimes even dangerous, assignments.

[Belov] And could you discuss them in a bit more detail?

[Faleyev] The detachment is called upon to effectively react to natural and man-caused disasters. We conduct immediate search and rescue, preventive and emergency operations. We ensure the constant readiness of rescuers, technicians, communications and vital activities systems in extraordinary situations, and transportation. We recruit rescuers and carry out their training. We drive out to disaster areas as consultants or organizers of the rescue of people and physical assets. Perhaps you will not list them all.

According to plan, there should be 190 people in the detachment. It is still not fully manned. We apply very strict requirements to those who request to join us. Far from everyone can conform to them.

Although the detachment is tasked to eliminate the aftereffects of extraordinary situations within the borders of the Russian Federation, we render assistance to the former union republics at their request. So, in Kyrgyzstan, we were involved with the search and extraction of people from under landslides and the rubble of buildings that had been destroyed by an earthquake and we rendered need assistance to the victims. After this, the Government of Kyrgyzstan concluded an agreement with the Russian Federation State Committee for GO [Civil Defense] Affairs, Extraordinary Situations and the Elimination of the Aftereffects of Natural Disasters, in accordance with which the equipping and training of local rescue formations is being carried out.

The detachment's alert shift is located in the city of Zhukovskiy, closer to the aviators—our air coachmen. There we have a training class, a training hall, everyday services buildings, and rescue equipment storage facilities.

[Belov] And do criteria exist to which the detachment must conform?

[Faleyev] There is an international organization called UNDRO—the UN bureau coordinator with headquarters in Geneva. UNDRO is involved with policy in the sphere of warning of extraordinary situations and in eliminating their aftereffects. It has developed requirements for rescue detachments of that level. The detachment must be manned primarily with adequately experienced rescuers who are capable of working

autonomously for a period of two weeks, arriving at a disaster area at any point of the planet no later than 12 hours after receiving the corresponding information, immediately beginning operations, and have an independent communications hub. Rescuers must know foreign languages and study and customs of the residents of the planet's regions.

Only conformity to these criteria will permit the detachment to be included in the international search and rescue services system. At that time, based upon a decision of the international community, it can be used to eliminate the aftereffects of major industrial or natural disasters in any country of the world. Of course, Russia also has the right to count on similar assistance. As the two largest tragedies of recent years—the accident at Chernobyl AES [nuclear power plant] and the catastrophic earthquake in Armenia—have demonstrated, today we can't get by without close international cooperation in the event of the emergence of large-scale and extraordinary situations.

[Belov] The opinion exists that rescuers are in it for the money. Otherwise, why risk their lives?

[Faleyev] That is a primitive, even erroneous, opinion. If you breathe a word about that to my lads, they will certainly hold you up to ridicule. Hardly anyone will envy their salary. It is the ordinary, statistically-average salary throughout Russia. Of course, they are paid an additional salary for accomplishing especially difficult or very dangerous tasks but, once again, not that much.

And, in my opinion, every decent person is obliged to risk his life to save people who have found themselves in trouble. This is an excellent character trait. It has brought the people who have been assembled at the detachment closer together. Former workers of small enterprises, spelunkers, mountain climbers, divers, cooks, radio operators, and drivers. You will agree that this is a rare combination of professions. You will become even more convinced of that if I tell you that Vladimir Melnik graduated from Moscow Institute of International Relations, Vladimir Akinich—is a candidate of medical sciences, Arsek Faradiyev—is an experienced archaeologist, and that my Rescue Operations Deputy Andrey Rozhkov was at one time one of the trainers of the USSR combined mountain climbing team.

And right now even these people are learning along with everyone else. And it's never shameful to learn. All the more so that every person in the detachment is obliged to master several of the most important specialties for rescuers. But here there is not and cannot be a wholesale approach. Say, everyone must know explosives, but ten people must be experts and the rest can know it somewhat less well. The second ten—are outstanding rock-climbers, and the rest also—but only less skilled. The third ten are experienced dog handlers but their comrades also know how to work with dogs during the search for people who have ended up under the ruins of

buildings. But everyone without exception skillfully renders first aid to victims as a result of some or other extraordinary situation. Thus, total interchangeability is ensured. And we are capable of immediately manning several teams of rescuers that are capable of operating simultaneously in different regions of Russia or in foreign countries.

[Belov] And where is such diverse training conducted?

[Faleyev] In Moscow and far beyond its borders. As you know, serious industrial accidents with the discharge of SDYaV [extremely toxic substances] pose a heightened danger for workers and employees of large chemical facilities and for the population that resides nearby. It is unthinkable to localize these ChPs [extraordinary situations] and to eliminate them bare-handed. Therefore, rescuers have acquired the skills of working in isolating protective systems. Exercises were conducted in Tula Oblast at the Russian Federation former Ministry of Industry Mountain Rescuers Skill Enhancement Institute.

We organized training at the famous Kraskovo Auto Center of Moscow Oblast for those who have not learned how to drive.

The knowledge and skills needed to render first aid were acquired at the Capital Medical-Biological Problems Institute.

The Crimea has become the traditional location for conducting rock-climbing training. We drove there in teams. We included doctors in one of them and they studied the condition of the rescuers before and after the training. In another—we included specialists of Moscow Scientific-Research Food Industry Institute. They developed a special extraordinary situation food ration for us and verified its effectiveness under conditions of the rescuers' aggressive activities. Incidentally, during one of the climbs up the mountain, our rescuers helped an unlucky mountain climber who found himself in a helpless situation. He didn't have enough strength or skill to reach the summit and he didn't know how to go down.

[Belov] Obviously, besides professional knowledge and skills, rescuers must have high, if you can say it this way, psychological stability?

[Faleyev] You can't be a rescuer without "iron nerves, a cool disposition and a great deal of self-control. He may only have seconds and not minutes in reserve to make the correct decision. He, like a combat engineer, does not have the right to make a mistake. Therefore, along with professional training, we involve them with moral-psychological training. It's only too bad that life itself has become the training ground for that. In the detachment, I can count on my fingers those who have not been entrusted to deliver humanitarian assistance to hot spots of the CIS and Russia. This is a very difficult mission. I have experienced that myself. You need to be courageous and resourceful in order to airlift a precious cargo from Moscow to a location where day and night they fire

practically all of the modern types of weapons. And although just a bit—you need to be a diplomat. In such cases, the rescuer already performs the role of Russia's authorized representative who transfers food, medicine or necessities to another state. Here everything must be done properly. You allow yourself to relax only when you cross the threshold of your own home. It's not for nothing that our lads call delivery of humanitarian assistance a combat mission. I must agree with them.

[Belov] I know that the lads talk about rescuers of legend. And how can you master this very rare profession?

[Faleyev] I will begin with the fact that there was no such profession of "rescuer" in our country prior to the creation of the Russian Federation State Committee for Civil Defense Affairs, Extraordinary Situations and the Elimination of the Aftereffects of Natural Disasters. Therefore, the Committee leadership was compelled to turn to the Ministry of Labor with a request to include this profession in the wage-skill handbook with the indication of the appropriate characteristics and requirements for it. Sometime, historians will recall that this profession of "rescuer" was officially born in Russia in 1992.

Unfortunately, for the time being, no one in the country is involved with the training of the corresponding cadres according to special, scientifically-based programs. But I am certain that today's lads will be lucky. For them, they are creating departments or educational institutions where they will obtain the opportunity to become professional international class rescuers. But for now, in our view, cadres must be trained primarily at educational institutions of the Russian Federation State Committee for Civil Defense Affairs, Extraordinary Situations and the Elimination of the Aftereffects of Natural Disasters and also on a contract basis at other organizations.

I want to warn those who dream of mastering our profession: first of all, to do that, you need to be in good health. Our brother must initially receive a certificate of good health from a treatment-physical fitness health center and then undergo a thorough medical examination at the Moscow Medical-Biological Problems Institute. And the training hall for us is like our own home. Rescuers are obliged to always be in good shape. Extraordinary situations arise not according to a timetable or according to a previously arranged schedule.

[Belov] The airmobile detachment... Do you have aircraft and helicopters?

[Faleyev] Alas, no. We deliver humanitarian assistance to hot spots with the assistance of Russian Air Force pilots. According to the agreement between the Ministry of Defense and the Committee for Civil Defense Affairs. Our lads have already become friends with certain crews.

But the detachment needs, like air, its own or attached aircraft. On a contract basis, we can provide only emergency airlift of rescuers using passenger aircraft. And the civil aviation system does not guarantee the possibility

of such emergency transportation of our equipment. Right now it would be advisable to use military-transport aircraft, especially when large-scale natural or man-made disasters arise. But along with that, another problem surfaces—how to reequip aircraft and helicopters with special search and measurement equipment and devices to accelerate loading and unloading, and securing various equipment.

[Belov] And from what sources is the detachment financed?

[Faleyev] Rescue operations are being conducted primarily at the expense of appropriations allocated by the Committee for Civil Defense Affairs. The customers—including the administrations of the regions where the detachment is accomplishing contract work—also contribute their share.

Self-financing based upon the detachment's primary profile is possible first of all while accomplishing unique operations using special equipment, and also during the organization of transport movements and the conduct of tests of new rescue equipment.

[Belov] Please tell us about the structure of the detachment.

[Faleyev] The primary structural unit is the service. There are four of them. I hope that everyone understands the functions of rescue and transportation. The engineering service brings all of our equipment to readiness, repairs it and maintains it in operating condition. Furthermore, it has been granted the right to order the manufacture or to acquire already manufactured new equipment while considering the organization's experience and the accomplishment of rescue operations.

The information and communications service—this is a mini-computer center that supports the creation of a database on our material resources, equipment, transport vehicles, and their optimal selection during a specific extraordinary situation. This team creates the detachment's archives, makes video tapes of the rescuers actions, carries out the search for information that we need, and accumulates cartographic materials. The emergence of an extraordinary situation that can be repeated only after many years has not been excluded. But everything that is associated with its characteristics should not be consigned to oblivion. Otherwise, later we will have to rapidly and painfully search for ways to localize it and to eliminate the aftereffects. That team reverifies the information that comes from the locations.

Without having precise and reliable information on an extraordinary situation, it is extremely difficult to make the most rational decision on the rescue of people and to render them first aid. Once they reported to us: a railroad accident has occurred and the consequences are insignificant. And in fact everything turned out to be otherwise.

Another case. A request to urgently deliver a hospital and personnel came from one hot spot. There were so many wounded that there was no place to put them and there weren't enough medical workers. Of course, we satisfied the request. Later we learned: the local authorities could have easily handled the situation even without our assistance. But you already can't get back the resources that have been spent.

[Belov] Since this detachment has been created in the country for the first time, obviously problems exist in its technical equipping?

[Faleyev] There are problems. But there certainly would have turned out to be many more problems if special scientific-research work that substantiates the detachment's level of technical equipment had not been accomplished based upon the Committee for Civil Defense Affairs initiative. We developed our equipment table based upon it. Now we have a self-sufficient base camp that can deploy in two hours. "Zvezda" Scientific-Production Association specialists sewed special clothing for us. Individual protective systems that are needed to eliminate the aftereffects of production accidents at nuclear energy and chemical industry facilities were manufactured at Kazan Chemical Scientific-Research Institute. Moscow Experimental Shoe Factory fulfilled our order. We obtained special motor vehicles and ZIP [spare parts, tools and accessories kits] for the detachment from Zhukovskiy Machinebuilding Plant.

As you see, we have not been cheated of our share of attention. And therefore we will attempt to successfully accomplish all of the tasks assigned to us.

COPYRIGHT: Izdatelstvo TsS SOSTO "Patriot", "Voyennyye znaniya", 1993

Statute on Conducting Military Assemblies of Reservists

93UM0701A Moscow KRASNAYA ZVEZDA in Russian
17 Jul 93 p 4

[Russian Federation Government Statute: "Statute 'On the Procedures for Conducting Military Assemblies of Russian Federation Citizens Who Are in the Reserves'"]

[Text] This Statute was developed based on the Russian Federation Law "On Military Obligation and Military Service" and other Russian Federation laws in the defense sphere.

The Statute defines:

a) the rights and obligations of the organs of executive power of the republics, krais, oblasts, autonomous oblasts, autonomous okrugs, the cities of Moscow and St. Petersburg, and local administrations within the Russian Federation, (hereinafter referred to as—organs of executive power), enterprises, institutions and organizations, regardless of organizational-legal forms (hereinafter referred to as—enterprises), officials and citizens of the

Russian Federation who are in the reserve (hereinafter referred to as—citizens), associated with the conduct of military assemblies;

b) the functions of the Russian Federation Ministry of Defense, its local organs of military administration (hereinafter referred to as—military commissariats) on issues of conducting military assemblies;

c) the procedures for the notification, call-up and shipment of citizens to the location where military assemblies are being conducted;

d) the procedures for organizing and conducting military assemblies;

e) the procedures for compensating the expenditures borne by enterprises and citizens as a result of the call-up of citizens for military assemblies; and,

f) liability for violation of the requirements of this Statute.

Chapter 1

General Provisions

1. Military assemblies are understood to be the conduct of measures for the training or retraining of citizens for military service in the Russian Federation Armed Forces and other troops listed in Article 1 of the Russian Federation Law "On Defense".

Training and retraining of citizens for military service can be conducted during the course of planned training sessions, exercises, training classes or practical work to service weapons and military equipment at military units, institutions, organizations, enterprises and military educational institutions of professional education (hereinafter referred to as—military units).

2. Military assemblies of citizens are conducted in accordance with the Russian Federation Law "On Military Obligation and Military Service" and this Statute.

3. Military assemblies are subdivided into the following based upon their goals and the nature of conduct:

a) training assemblies:

within military units and subunits in authorized positions to which citizens have been assigned (attached) to perform military service in wartime (hereinafter referred to as—unit-assigned reservists training assemblies);

for training and retraining citizens in military occupational specialties;

to service arms and military equipment of emergency supplies with their simultaneous training (hereinafter referred to as—military assemblies to service emergency supplies equipment); and,

b) assemblies to verify the mobilization readiness of large formations, military units, military commissariats and other troops (hereinafter referred to as—verification assemblies).

Besides training and verification assemblies, training sessions can be conducted to train the augmented administrative staff of military commissariats (in accordance with the Statute on Local Organs of Military Administration) and also to train citizens who have been enlisted for primary work at military units during their shift to wartime strength levels.

The conduct of military assemblies and training sessions for other purposes is prohibited.

4. The following time periods for attendance of military assemblies by citizens are established:

- a) unit-assigned reservists training assemblies—up to 10 days;
- b) training assemblies to train or retrain citizens in military occupational specialties—up to 60 days;
- c) training assemblies to service emergency supplies equipment—up to 25 days; and,
- d) verification assemblies—up to 10 days.

Citizens are enlisted for a period of no more than eight hours for training sessions.

Specific time periods for the attendance of military assemblies and training sessions by citizens within the limits prescribed by this Statute are determined by the Russian Federation Ministry of Defense and other Russian Federation ministries, state committees and departments in which military service has been provided for.

The day of a citizen's entry onto a military unit's personnel rolls is considered to be the initiation of military assemblies. The end of military assemblies is considered to be the day of the expiration of the term of military assemblies.

5. The number of citizens called up for military assemblies is established by the Russian Federation President based upon the submission of the Russian Federation Council of Ministers-Government while considering the needs for training or retraining specialists for the Russian Federation Armed Forces and other troops.

6. The organs of executive rule organize the call up and shipment of citizens to military assemblies.

Military commissariats are tasked with the following functions:

- a) the study and selection of candidates who are subject to call up for military assemblies;
- b) organization of medical examinations of citizens who have been called up for military assemblies;

c) notification and call up of citizens for military assemblies;

d) organization of the shipment to military units of citizens who have been called up; and,

e) compensation of expenditures to enterprises at the expense of Russian Federation Ministry of Defense resources that have been borne by them as a result of the conduct of military assemblies.

7. The Russian Federation Ministry of Defense and other Russian Federation ministries, state committees and departments in which military service is provided for are tasked with planning and conducting military assemblies. The time periods for the conduct of military assemblies are coordinated with the organs of executive rule and with the managers of enterprises.

8. Citizens and officials who are guilty of not fulfilling tasks for the organization and conduct of military assemblies are liable in accordance with Russian Federation law.

Chapter 2

Call Up of Citizens for Military Assemblies

9. A call up of citizens for military assemblies is conducted to conduct training and verification assemblies.

Citizens are summoned to the military commissariat to conduct training sessions.

10. Citizens who do not have deferments from call up for mobilization can be called up for military assemblies.

Citizens who have been enlisted in military commissariats augmented administrative staffs and also those who have been included in a team to carry out primary work at military units during the shift to wartime strength levels may be summoned for training sessions.

11. The following personnel are released from military assemblies in accordance with Article 53 of the Russian Federation Law "On Military Obligation and Military Service":

- 1. Female citizens;
- 2. Male citizens:
 - a) who have been reserved for enterprises, institutions and organizations for the period of mobilization and wartime;
 - b) civilian personnel of the Russian Federation Armed Forces, other troops, foreign intelligence organs, federal state security organs, and internal affairs organs;
 - c) flying-technical personnel and also workers and employees of aviation and rail transportation who directly carry out and support transport movements or are involved with the servicing and repair of aircraft (helicopters), airfield equipment, rail transportation rolling stock and devices;

- d) shipborne personnel of naval ships and also shipborne personnel of the river fleet and fishing industry fleet—during the period of navigation;
- e) directly involved in sowing and harvest work—during the period when such work is being conducted;
- f) pedagogical workers of educational institutions;
- g) students (cadets) and pupils of day and evening departments of educational institutions;
- h) students (cadets) and pupils of correspondence departments of educational institutions—for the period of examination and testing sessions or to write a thesis;
- i) those who have been released from military service—for a period of two years from the day of release into the reserve;
- j) those who have three or more adolescent children;
- k) those who have grounds stipulated by Article 21 of the Russian Federation Law "On Military Obligation and Military Service" with the exception of paragraphs "d" and "e" of the first part and paragraphs "a" and "e" of the second part of the indicated article of that Law; and,
- l) those who are abroad.

—3. The military commissar can make a decision on the release of citizens from call up for military assemblies if valid reasons exist to do that have been confirmed by the appropriate documents.

12. The selection of candidates for call up for training assemblies is conducted by military commissariats jointly with the military units being manned.

Candidates for call up for training assemblies are coordinated with the managers of enterprises.

The number of candidates selected for call up for training assemblies must ensure the creation of the needed reserve but no more than 25% of the primary task.

In the period of selection, citizens can be summoned to military commissariats to update registration data and medical examinations.

Based upon the results of the selection, the military commissar makes the final decision on the call up of citizens for military assemblies.

Selection of candidates is not conducted for the call up for verification assemblies.

13. Citizens who have complained about their state of health and also individuals who have been selected as candidates for unit-assigned reservists training assemblies of Airborne Troops units, reconnaissance-airborne subunits, aircraft flying personnel, Navy shipborne personnel and for training assemblies to train citizens in

military occupational specialties are subject to a medical examination as prescribed by the provisions on military medical boards and medical examination of flying personnel of Russian Federation Armed Forces aviation.

Citizens who have been called up for military assemblies in the positions of specialists for missile fuel, divers, and troop feeding specialists, are issued documents of the prescribed type of fitness for work in the specialty based upon the results of a medical examination.

14. Notification of citizens who have been called up for training assemblies is conducted beforehand during the process of studying and selecting candidates. Citizens who have been selected to attend training assemblies are issued orders that indicate the time to appear at the military commissariat no later than 10 days prior to their initiation.

On the day of the citizens' arrival at the military commissariat, their call up for training assemblies and shipment to military units is conducted.

15. Notification, call up and shipment of citizens to verification assemblies are conducted in accordance with the procedures and in the time period prescribed by special plans.

16. In the event a citizen fails to appear at military assemblies without valid reasons, the military commissar takes all of the required steps for his call up and delivery to the military unit. When necessary, the internal affairs organs are enlisted for these purposes in accordance with the Russian Federation Law "On Military Obligation and Military Service".

17. Managers of enterprises are informed about the call up of citizens for military assemblies. In the notification to the manager of the enterprise, the time of diversion of citizens as a result of their call up for military assemblies is indicated with the calculation of the time of performance of training, and round-trip travel time to the military unit.

18. The transportation of citizens who have been called up for military assemblies is conducted by rail, sea (river) or motor vehicle transportation and, at a distance of 3,000 km or more, by air transportation. Transportation is carried out at the expense of Russian Federation Ministry of Defense resources.

The following are tasked to organize transportation:

a) military commissariats—from the place of residence to the military unit deployment location of the military units that are conducting the assemblies. Motor vehicle transportation for these purposes is allocated by enterprises based upon plans (decisions) of the appropriate organs of executive rule; and,

b) military units (upon completion of training)—from the deployment location to the military reservists' place of residence.

Chapter 3

Organization of the Conduct of Military Assemblies

19. Citizens who have been called up for military assemblies fulfill their military service obligations.

The duration of the training time (training sessions) at assemblies is established in accordance with combat training program requirements.

Supplying military assemblies with weapons, military equipment and other material resources is carried out at the expense of the resources of the Russian Federation Ministry of Defense, Russian Federation ministries, state committees and departments, in the troops of which the military assemblies are being conducted.

20. Citizens, who have been called up for military assemblies and who have not previously taken the military oath, are administered the oath within a five-day period and military unit commanders make the appropriate notations in the military reservists' personal military registration documents.

Unit-Assigned Reservists Military Training

21. The following are the primary tasks of unit-assigned reservists training assemblies:

- a) verification of the realistic nature of individual planned mobilization measures;
- b) training of administrative elements of large formations, units and subunits for combat operations under wartime conditions;
- c) improvement of the mobilization readiness of military commissariats;
- d) improvement of citizens' military knowledge and special training while fulfilling their official duties, ground forces field training and skills in using organic weapons and military equipment in modern warfare; and,
- e) improvement of the skills of skillful leadership among officers during the transfer of large formations, military units, subunits to wartime strength levels and during training to accomplish combat missions.

22. To conduct unit-assigned reservists training assemblies, a complete or partial shift of large formations and military units to wartime strength levels in the numbers prescribed by the Russian Federation Ministry of Defense, Russian Federation ministries, state committees and departments is carried out in the troops of which the assemblies are being conducted.

Training of citizens at unit-assigned reservists training assemblies is conducted at wartime strength levels as part of subunits and units and is carried out based upon the programs developed by the Russian Federation Ministry of Defense, Russian Federation ministries, state

committees and departments in the troops of which the assemblies are being conducted.

23. Upon completion of unit-assigned reservists training assemblies, verification of the mastery of functional duties by citizens may be conducted based upon the position held during training. A finding on the advisability of awarding the next reserve military ranks is issued based upon the results of the verification.

A citizen who has successfully passed qualification tests can be submitted for the award of the next military rank in accordance with Paragraph 3 of Article 54 of the Russian Federation Law "On Military Obligation and Military Service" if he has been designated for wartime and has completed unit-assigned reservists training assemblies in a position for which the military rank prescribed by the table of organization and equipment is equal or higher to the rank for which he is being submitted.

Military Assemblies to Train or Retrain Citizens in Military Occupational Specialties

24. The following training is conducted at military assemblies to train or retrain citizens in military occupational specialties:

- a) training of reserve officers for higher positions;
- b) training of reserve officers from among reserve army and navy warrant officers, sergeants and petty officers, soldiers and sailors;
- c) training, retraining and improvement of the military knowledge of citizens on new types of weaponry and military equipment; and,
- d) training in military occupational specialties for citizens who have not performed military service.

25. Training and retraining of citizens in military occupational specialties is conducted centrally, at training centers (subunits), large formations and military units that have been specially created for this purpose and that have the required training and material-technical facilities, under military educational institutions of professional education according to the programs developed by the Russian Federation Ministry of Defense, Russian Federation ministries, state committees and departments in the troops of which assemblies are being conducted.

26. Upon completion of the indicated training assemblies, verification of the mastery of the programmed material that has been covered by citizens is conducted on the basis of which they are awarded a military occupational specialty.

A citizen who has successfully passed the qualification tests can be submitted for the award of the next military rank in accordance with Paragraph 3 of Article 54 of the Russian Federation Law "On Military Obligation and

Military Service", after appointment to a wartime position for which the military rank prescribed by the table of equipment and organization is equal or higher to the rank for which he is being submitted.

Reserve army and navy warrant officers, sergeants and petty officers, soldiers and sailors, who have successfully passed the examinations (qualification tests) according to the reserve officer training program are submitted for the award of the first reserve officer rank.

Citizens, who have been trained at assemblies in the positions of driver-mechanics of tanks, infantry fighting vehicles, tracked prime movers and engineer vehicles, take examinations on the operating principles, operation, road traffic regulations, and practical driving. Having successfully passed the examinations, they are issued certificates in the prescribed manner for the right to drive a combat vehicle.

Training Assemblies for Servicing Emergency Supplies Equipment

27. Training assemblies for servicing emergency supplies equipment are conducted for the purpose of placing it in long-term storage, the conduct of routine maintenance and other work, and also to study the equipment being serviced and to improve the practical skills of citizens to operate the equipment and for its combat employment.

No less than 25% of training time at indicating assemblies is reserved for the combat training of citizens.

Training assemblies for servicing emergency supplies are conducted in accordance with the plans of large formations and units for the renewal of emergency supplies equipment and for minor maintenance work on military equipment and weaponry.

Verification Assemblies

Verification assemblies are conducted to determine the level of combat and mobilization readiness of the troops (naval forces) and military commissariats.

The right to conduct verification assemblies is granted to the Russian Federation Minister of Defense or to Russian Federation Armed Forces Chief of the General Staff at his designation, and also to other Russian Federation ministers, chairmen of state committees and heads of departments in which military service is provided for.

A complete or partial shift of individual large formations and military units to wartime strength levels with the call up of citizens who are attached to these large formations and military units is carried out to conduct verification assemblies.

After the shift to wartime strength levels and manning during the course of conducting verification assemblies, large formations and units are subject to verification of their capability to accomplish assigned missions.

Chapter 4

Material, Technical and Financial Support of Citizens Who Have Been Called Up for Military Assemblies

29. For the period of assemblies, citizens who have been called up for military assemblies are provided with:

- a) food based upon the rations standards prescribed for personnel of units that are conducting assemblies; and,
- b) clothing according to the standards prescribed for the appropriate categories of servicemen.

30. Job (student) retention with payment of the average salary (stipend) but no more than the 10 minimum salaries prescribed by Russian Federation law and temporary duty expenses during the time en route and the cost of passage at the expense of the Russian Federation Ministry of Defense resources are preserved for citizens who are not servicemen, for the period they perform their military duties, without formulation of a call up (medical examination, study and selection of candidates for performance of military assemblies, and training sessions as part of teams to accomplish primary work during the shift of military units to wartime strength levels and to augment military commissariat administrative staffs).

Payment of the average salary to citizens who have been diverted from labor activity to fulfill their military obligation is conducted by the enterprises where they work on the basis of information issued by the military commissariats, on the actual time that the citizen was at the military commissariat, and also while considering the travel time if the measures are associated with a departure from the permanent place of residence.

Compensation to enterprises for expenses associated with the payment to citizens of the average wages after their fulfillment of the military obligation is conducted by military commissariats based on the invoices submitted by the enterprises for the average wage amounts paid. Transfer of the monetary resources by the military commissariats is conducted within one month from the day the enterprise's invoice was received.

The Russian Federation Ministry of Defense does not compensate enterprises for other types of expenditures.

31. Citizens who are temporarily not working or who are involved in individual work activities are paid a salary by military commissariats in the amount of the minimum wage prescribed by Russian Federation law for the period they are fulfilling their military obligation.

32. A citizen who has been called up for military assemblies is released from work with preservation of his job (study) but without payment of the average wage. In the military unit where he is performing military assemblies, during the time when he is performing military assemblies (including the round trip travel time from the military commissariat to the location of the military assemblies), he is paid a salary based upon the military

position to which he is assigned and based upon military rank based upon the orders of the commanders (superiors) under the leadership of whom the assemblies are being conducted and also temporary duty expenses for the round trip travel time to the location where the assemblies are being conducted.

Payment of salaries based upon military position and military rank to citizens is conducted as for servicemen who are performing duty on contract.

Furthermore, a citizen who has been called up for military assemblies is provided with food while traveling based upon the standards prescribed for servicemen who are performing military service based upon conscription or the appropriate military compensation.

33. Expenses associated with the call up, transportation, and material support of citizens who have been called up for military assemblies are reimbursed by the Russian Federation Ministry of Defense, Russian Federation ministries, state committees and departments in which the military assemblies are being conducted.

Chapter 5

Rights, Obligations and Responsibilities of Citizens as a Result of Conducting Military Assemblies

34. The status of serviceman extends to citizens who have been called up for military assemblies in cases and as prescribed by Russian Federation law in the sphere of defense.

35. Citizens who have been called up for military assemblies are subject to mandatory personal insurance in the event of death, injury (contusions) or illness received during the period of performance of assemblies in accordance with Russian Federation Law.

36. The time of performance of military assemblies (from the day of entry to the day of removal from the military unit personnel rolls) is calculated in the overall duration of military service of a citizen and the appropriate entry is made in military registration documents, certified by the commander (chief of staff) of the military unit that is conducting the military assemblies.

37. The enlistment of citizens who have been called up for military assemblies for the fulfillment of other duties that are not associated with the performance of military assemblies, including economic and construction work, is prohibited.

38. Citizens who have been called up for training assemblies may be dismissed from them as a result of:

- a) lack of discipline; or,
- b) disparity with their assigned position.

Dismissal of citizens from training assemblies is carried out upon the submission of the commanders of the military units that are conducting the assemblies, by

senior commanders (superiors), and the managers of enterprises are immediately informed of this.

39. Citizens who have been called up for military assemblies and who have violated the prescribed procedures for their conduct are held liable as prescribed by Russian Federation law with regard to servicemen.

40. A citizen who has not appeared according to the military commissariat summons on a call up for military assemblies within the prescribed time period without a valid reason or who has received an illegal release from a call up for military assemblies through deception is subject to criminal liability in accordance with Russian Federation law.

Directorate Chief on Progress of Housing Construction

93UM0707A Moscow KRASNAYA ZVEZDA in Russian
20 Jul 93 p 2

[Interview with Lt-Gen Leonid Konovalov by KRASNAYA ZVEZDA Correspondent Lt-Col Ivan Ivanyuk : "Let the Military Get Used to Living in Cottages Too"]

[Text] A conversation between our correspondent and the chief of the Main Directorate of the Construction Industry of the Ministry of Defense, Lt-Gen Leonid KONOVALOV on the course of housing construction for service members in the prevailing economic situation.

[Ivanyuk] Leonid Valentinovich, what is the contribution of the main directorate in the implementation of the plans for housing construction for the needs of the army and navy?

[Konovalov] As you know, the Ministry of Defense is supposed to build a total of 45 thousand apartments this year through its own resources. The structures and parts for 30 thousand of them are supposed to be produced at our enterprises. In order that the production lines be utilized most effectively, narrow specialization has been introduced at the plants: one, two or a maximum of three types of large-panel housing structures are produced, in three-shift operations. So each house is assembled simultaneously by 8-10 plants, including district and naval plants. This requires teamwork and precision in the operations of all the services, but there is no other way to fulfill the difficult assignments. Work within the framework of the apartment construction organs is planned so as to avoid transporting parts of the buildings all over the country. This is too much overhead under conditions in which transport costs more than the cargo itself. For example, shipments of series 101 houses to the Transbaykal and Near-East Military district and to the Pacific Fleet have practically halted. Because the units and formations of nearby countries are basically being moved to the European part, it was even necessary to mothball the ZhBI plant at Uzhur.

These and other requirements are imposed on us by the market economy. The enterprises of the domestic

economy are prepared to sell construction material to the Ministry of Defense. But there is still the matter of price. Right now the houses produced at our enterprises are fully competitive with the "civilian" ones, first of all because of the comparatively low cost of the structures.

[Ivanyuk] You talk of the comparatively low cost of the manufactured homes. But hasn't the main directorate been affected by the prevailing unlimited prices in the energy and raw material markets?

[Konovalov] Yes there are plenty of problems. After all, the spectrum of tasks which the directorate must resolve is very wide. It covers 6 branches: lumber, wood-working, production of precast reinforced concrete, mining of non-metallic mineral resources, metal processing and repair of construction equipment. The non-metallic and wood-working industries find themselves in the most difficult situation. Before 1992 we produced on the order of 12 million cubic meters of crushed stone per year, filling 95% of the needs of the Ministry of Defense. This was a very profitable branch. With the dissolution of the Union, five enterprises were beyond the borders of Russian, but the ones remaining were incompletely utilized. For instance, a combine in the Orenburg oblast was oriented toward Baykonur. The construction program at the cosmodrome was sharply cut recently. So where should they send their crushed stone, considering that its cost is only 70 percent of the cost of shipment. It was necessary to organize the production of other materials at the site, like brick pressed from sifted materials, with minimal additions of cement, ceramic tiles, etc.

Seventeen of our lumber combines, producing on the order of 2 million cubic meters of lumber annually, also found themselves hard-pressed. The volume of orders for wooden 8-12 apartment houses, two-story communal residences, and railroad cars with living accommodations were reduced sharply. A recent government decision, which shook the entire lumber industry, ordering a deduction of 20% of the cost of all products for lumber restoration (it used to be 3%), also affected us. This is an unbearable burden.

[Ivanyuk] And still, despite the breaking of economic ties and the system of mutual payments, despite the inflation, you have managed not only to avoid a financial crash, but even to fulfil the plans?

[Konovalov] It's true, the semiannual plan assignments for large-panel housing construction were met at more than 105 percent, and those for marketable products were just short of 102 percent. This was helped greatly by the support of the Main Directorate of the Military Budget and Financing of the Ministry of Defense. They supplemented our working capital, met us halfway and changed the accounting procedures for unloaded products. Housing construction has advanced, both in the past and this year. All this significantly improved the financial situation of the enterprises, which was quite difficult not only owing to purely economic factors, but I would say also to "social" ones. That which earlier had

been their property, residential buildings, kindergartens, recreational centers, had turned into a problem. For example, at one of the best of our plants, which is in the city of Sokol in the Vologod oblast and directed by Col Vasiliy Kazachkovskiy, they not only built an excellent residential area, but also added a swimming pool, cafe, two recreational and health centers, and many other social and cultural facilities. All this is now part of the balance of the enterprise and is a heavy burden on its budget. Of course they managed to reach an agreement with the local authorities about this, so that in the second six months the city would assume operation of the housing and public services, as had been provided for earlier by government decree. But these questions are not by any means always resolved positively. The local administrations as a rule have their own problems.

[Ivanyuk] But you must agree that under the current conditions, nonetheless, there is no other way than to conquer the market.

[Konovalov] We understand this, and frankly, we would never have survived otherwise. I can say without exaggeration that our best enterprises can compete at the world standard. I will give only a few examples: in the wood-working combine headed by Yevgeniy Dmitriyev, the quality millwork and parquet that they produce is such that it completely satisfies the German companies which build housing for our service members. The machine plant which Vladimir Deyneko has run for more than 40 years has mastered the production of metal structures with a span of 86 meters. They have also found application in the construction of defense installations, and in the building of the business center of the TsSKA. At an enterprise in Taganrog, where the chief is Col Genadiy Miroshnikov, they have produced unique polishing machines which make it possible to make the landing strip for the Buran "shine."

Just recently, the fact that they were once forced to produce consumer wares has become a lifesaver for labor collectives. At one time they rebuilt a shop which allows them not only to organize the production of furniture, or, for instance, wooden items which are in demand, but also to set up a number of major programs. From garden sheds they moved to cottage-building. At the enterprises of the main directorate, they organized design and production of one and two-story cottages to implement the program for small-residence construction developed in the Ministry of Defense. Capacities were placed in operation to produce modular reinforced concrete homes, modular homes based on cement-chip plates, and production of cottages from planed wooden beams was mastered. As they say, something for any taste.

In addition, we undertook the obligation in 1993-1994 to construct the first experimental housing center to accommodate service members of the Kantomirov division in the region of the city of Naro-Fominsk. A total of 98 houses will be built, 25 of them this year. Although the work was just begun in May, four houses are already roofed, the foundations have been laid for three, while

the structures have been brought in for 13. In each cottage, which will contain 3-5 rooms, there is a plot of land with a 15 hundredths area. And while a square meter of such a residence is a little more expensive than in a multi-apartment residence, it seems to me that this is a promising trend in resolving the housing problem. At least in this case it is resolved one time, rather than two or three times, as is usually the case with growth in the family of the officer or warrant officer. Here it is possible to allow for all the individual requests of the builder. Incidentally, at our enterprises now they are prepared to satisfy literally any request of the service member, if they need a garden shed, a garage, a bath or perhaps a metal door for the apartment. All can be acquired in a standard variant or ordered from an individual plan.

[Ivanyuk] Leonid Valentinovich, please tell us in conclusion about other prospects for resolving the housing problem in the army and navy.

[Konovalov] I already told you some of them. In the area of cottage construction we are counting on broad coordination with the German Streif company, from which we once purchased a line for the production of wall panels, but most importantly, with its help we were able to assimilate the "ideology" of construction of individual housing, which they have had for decades.

I am certain that the future belongs to up-to-date individual houses for the families of service members.

Reasons for Ryazan Housing Shortage

93UM0716A Moscow KRASNAYA ZVEZDA in Russian
23 Jul 93 p 2

[Article by KRASNAYA ZVEZDA Correspondent Yuriy Gladkevich, under the rubric: "Letter With Commentary": "Isn't It Time to Expose the 'Black Box' of Ryazan Long-Term Construction?"]

[Text] "We have been extremely disillusioned with how the local authorities fulfill the requirements of the laws and edicts of the Russian President on providing housing to those who have been released from military service," writes Ryazan Reserve Officers Union Council Chairman Yuriy Surkov to the editorial staff. "Significant resources have been given to the city for this purpose in the second half of last year and in the first half of this year, but there hasn't been any housing and there still isn't any. But City Mayor V. Ryumin, instead of setting up work and finding a solution to the problem, is attempting to shift responsibility to the Russian Federation Ministry of Defense.

We are not requesting alms. We are demanding a close study of the problem and punishment of those leaders and bureaucrats whose activity or inactivity violates our legal rights. We understand that observance of the three-month period to provide us with housing that is prescribed by law has been impeded by the severe economic situation in the country and we are prepared to be patient. But you can't be patient when you see that the resources for housing construction that were found with such difficulty by the

government are being ineptly and irresponsibly utilized. The list of "military" personnel on the housing list in Ryazan is headed by people who have been on the list for six (!) years. Among us are Afghantsy [Afghan vets], Chernobyl vets, disabled people, and families with many children...

We could ascribe the confusion that occurred in housing construction for military personnel last year under the well-known leniency to delays in the operation of the mechanism caused by reforms of the power structures. But they are continuing even now. Nearly half a billion rubles in resources have been allocated but a total of approximately four million have been spent during the five months of 1993. Meanwhile, the mechanism for purchasing housing has still not been defined and we have no real prospects for attaining apartments this year. The next long term construction and extraneous facilities will consume everything..."

In order for the alarm of the letter's author and of everyone he represents to be more understandable, let's cite figures that characterize the dynamics of the increase of the number of homeless servicemen in Ryazan and the oblast during the least two and a half years. If 750 cadre military and 466 reservists did not have housing on 1 January 1991, these figures were 1,554 and 1,064, respectively, on 1 January 1993. That is an increase of more than two times. The primary portion of them—more than 80%—are on the housing register in Ryazan. By today, the number of homeless families has already exceeded 3,000.

Just what did homeless military personnel receive in 1991-1992? The Russian Federation Ministry of Defense introduced nearly 500 apartments on oblast territory during that time. Servicemen who had been released into the reserve or who had retired received another 73 apartments (according to oblast statistics administration data). That is only 1.9% of the number of apartments built by the oblast at the expense of the sources of financing.

At the beginning of February 1993, the Russian Federation President's Administration Control Commission was working in the oblast. Its conclusions are unambiguous: "The Russian Federation President's 19 February 1992 Edict, which discusses eliminating the housing debt in the first half of 1992, has not been fulfilled in the oblast and city of Ryazan (at the time of the inspection, this debt totaled 16,500 square meters of housing—Yu.G.). The 20 August 1992 Government Decree 'On Urgent Measures to Provide Housing to Servicemen and Individuals Who Have Been Released From Military Service and Their Family Members' in accordance with which Ryazan Oblast must build 27,000 square meters of housing for servicemen who have been released into the reserve or who have retired is not being fulfilled..."

When the question is asked, "Why has housing not been built", one of the first stipulations that they resort to everywhere is—they say there wasn't any financing. Let's

warn the comrades from Ryazan and the oblast: there was financing. For example, in 1991, the Russian Federation Ministry of the Economy defined the limits in the amount of R2.5 million for construction of housing for individuals who have been released from military service for Ryazan Oblast. That was quite a bit of money for the time. How was it utilized?

According to a directive of Ryazan City Council of People's Deputies Chairman V. Ryumin, the limits were directed toward the construction of five apartment buildings with the introduction into operation of 5,770 square meters of space. In the process, R2.03 million, that is 84%, was directed to the construction of a 68-apartment building which was not in the capital construction plans either in 1991 or in subsequent years. Construction of this apartment building has actually not begun.

So, the inspectors from the Russian President's Control Administration arrived at the conclusion that the disruption of the plans to provide housing to reserve servicemen was predetermined by a decision of the Ryazan Administration already at the planning stage. Moreover, of all the housing that was allegedly built for them, a total of three apartments have been turned over—that is, only 7% of the appropriations allocated by the government reached the consumer.

That was in 1991. The next year, Ryazan was allocated R120.4 million and R70.4 million was obligated (59%), of which only one fifth went for construction of housing and Ryazangorstroy AO utilized the remaining amount for the purchase of materials and equipment for the planned construction of a new microrayon only in 1994...

The irrational utilization of resources for housing construction in Ryazan and the oblast is reduced to the fact that long-term construction is becoming an everyday phenomenon. For example, there are 90 apartment buildings with a total area of more than 500,000 square meters, including 42 apartment buildings with a total area of over 260,000 square meters, in unfinished production at Ryazangorstroy Association alone, for which the standard construction periods have been significantly increased. This in turn is reduced to the fact that inflation is "consuming" the allocated resources and the allocation of additional appropriations is required.

The weak effect of capital investments is also explained by shotgun financing of housing construction under which federal financial injections enter a "black box" and are not reflected in the appropriate planning and financial documents...

In general, we need to say that the "kitchen" of housing construction—is a thing that is poorly understood by the rank and file resident. Yes and an expert sometimes needs lots of time and effort to investigate it. However, even with a superficial acquaintance with the Ryazan "variation" of the solution of the problem of providing housing to servicemen and individuals who have been released from military service, the quite solid impression arises that the Ryazan authorities are not too concerned about the interests of the cadre military and reservists. And as a result, the impression expressed by Yuriy Surkov and those whose interests he represents are quite reasonable: isn't it time to shift from compiling information, even if spatial and objective, to more decisive actions? Those who are guilty of deceiving the expectations of citizens and undermining their faith in the effectiveness of the laws and other normative acts, and of manipulations with the resources that have been allocated for the construction of housing must be held liable, both administratively and financially.

INTERREGIONAL MILITARY ISSUES

Georgia to Sign Cease Fire with Abkhazia

93UM0725B Moscow KRASNAYA ZVEZDA
in Russian 27 Jul 93 p 3

[Article by Petr Karapetyan under the "Events and Comments" rubric: "E. Shevardnadze Ready to Sign Cease Fire; Abkhaz Government Not Yet Given Draft Agreement"]

[Text] On 25 July, after lengthy and very difficult deliberation on the draft Agreement on Cease Fire in Abkhazia and Oversight Mechanism in the Georgian parliament, the head of the Georgian government instructed his authorized representatives to sign the document after the necessary changes were made. In his statement, Eduard Shevardnadze made note of the positive influence exerted by Russia in effecting a settlement of the Abkhaz conflict, emphasizing once more—as he has many times in the past—Russia's interest in the territorial integrity of Georgia.

At the same time, the Abkhaz Supreme Soviet Press Service denied that signing of an agreement is to take place. It has been ascertained that the Abkhaz government has yet to be provided with a draft agreement containing changes made by the Georgian government.

The situation in the conflict zone is as volatile as ever, and, in Georgia, it is no surprise that Shevardnadze's decision was received in various ways by the leading politicians. Professor Nodar Natadze, chairman of the People's Front, stated that the cease fire agreement is "an act of surrender." Sandro Kavsadze, personal representative of the Georgian state's head in Abkhazia, made the admission, "If we intend to bring the war to an end, we must make certain concessions in Abkhazia." Lieutenant General Levan Sharashenidze, Georgian deputy minister of defense, feels that there is no reason to panic, and that "We may be taking half a step backward just now, but tomorrow we will take three steps forward."

And what about Tengiz Kitovani, the ex-Minister of Defense—the most irreconcilable adversary of Shevardnadze? His trips to rebellious Meghralia furnish grounds for assuming that he is seeking new partners, ones evidently not merely of a political sort. Kitovani has formed a close tie with Loti Kobalia, previously chief of Zviad Gamsakhurdia's personal guard, presently commander of a large detachment of "Zviadists." In December of 1991 Kobalia and Kitovani stood on opposite sides of the fence, but now they stand together. Only time will tell what this strange alliance will bring. According to an unconfirmed report we have received from Tbilisi, armed detachments of Kobalia and Kitovani have entered Senaki; they intend to take Kutaisi and declare it capital of Meghralia.

Future of Aviation Training Regiments In Kyrgyzstan Discussed

93UM0735A Moscow KRASNAYA ZVEZDA in Russian
30 Jul 93 p 2

[Article by KRASNAYA ZVEZDA Correspondents Anatoliy Ladin and Sergey Knyazkov, under the rubric: "Letter With Commentary": "The Helicopter Is Kyrgyz and the Pilot Is Russian"]

[Text] The 5th Central Aviation Cadre Training and Improvement Courses (TsKPUAK), located on the territory of Kazakhstan and Kyrgyzstan, were well known not only in the USSR. They had marvelous logistic and technical support facilities and skilled cadres which made it possible to "pin wings" both on our and also on pilots from more than 50 of the world's countries.

With the disintegration of the USSR, the unique complex has ceased to exist in its previous form. One of the training regiments that is deployed in Lugovaya has been transferred to Kazakhstan's jurisdiction. Three others that are located in Bishkek, Kant, and Tokmak, ended up under Kyrgyzstan's jurisdiction and the Republic Air Force was founded based upon it.

Could everything have remained in its force form? Experts assert that CIS "patronage" could have taken place. And that is because the courses were not left to exist in their previous form because no one answered us. But worst of all after "privatization" of the equipment they did not think about the fate of TsKPUAK's pilots, the overwhelming majority of whom are Russian.

From the letter to the editorial staff of Bishkek Helicopter Training Regiment General Assembly of Servicemen Chairman Colonel V. Mozheyko:

"At the present time... we, Russian servicemen, have found ourselves isolated from our Homeland, relatives and loved ones and with a low level of social protection.

"... The material situation of unit servicemen, in contrast to Russian servicemen, deteriorated as a minimum by a factor of four. Highly-skilled specialists are leaving the ranks and junior officers refuse to serve for such miserly salaries.

"Due to the absence of logistic and technical resources, practical training of cadets has ceased and, by the end of the 1993 training year, there will be practically no one to train them if the situation is not changed.

"It is very easy to transform a powerful aviation facility into 'ruins' and to dismiss experienced, highly-skilled flying and maintenance personnel but it will take years and millions of the people's resources for the restoration of all of this. And the facility is needed both by Kyrgyzstan and by Russia—both in a strategic and in an operational context."

What are the pilots requesting? If Kyrgyzstan, the letter states, plans to have its own armed forces, then provide

a proper (at the level of the Russians) material situation and social-legal guarantees of servicemen. If no—transfer the regiment to the jurisdiction of the Russian Federation. In the event that both states are not interested in the courses, the servicemen of the regiment demand an “immediate governmental decision on the centralized withdrawal of personnel and their family members from Kyrgyzstan to the Homeland.”

It is a bitter letter, although let's note that the situation of the personnel of the Bishkek regiment is not the very worst. A department for the training of aviation specialists for Kyrgyzstan, Uzbekistan and Tajikistan is currently operating at the facility. But the many experts whom we managed to meet with confirm the problems raised in the aviators' letter. How do we resolve these problems?

As we know, Russian-Kyrgyz documents on cooperation in the military sphere were signed recently in Moscow. The pilot training center in Bishkek is not mentioned as a Russian military facility in the agreement between the two states on the procedures for the utilization of Russian military facilities on the territory of Kyrgyzstan and the status of Russian Federation Armed Forces servicemen in Kyrgyzstan. Kyrgyz Delegation Head Major-General Dzhaniybek Umetaliyev explained to a KRASNAYA ZVEZDA correspondent at that time that for the time being Kyrgyzstan will maintain these courses using its own men. “But considering that the contingent of these courses, especially the teaching staff, is made up of 95% people who are Russian natives, we would like Russia to actively participate in the fate of these courses and their content,” noted Dzhaniybek Umetaliyev. “And I think that the treaties and agreements that have been signed today are the first step toward a situation where we can jointly be concerned about the fate of these officers”.

It is understandable that Kyrgyzstan also has an interest in the preservation of this very unique educational institution for which there are no similar institutions on the territory of the former USSR. “All the more so,” stated Major-General Umetaliyev, “that I personally discussed that issue with the Russian Air Force Commander-in-Chief and he promised to send a team of his experts in the near future who together with us would develop proposals on the future fate of these aviation courses”.

It's obvious that for the time being this is the only possibility to resolve the problems of the helicopter regiment. It is characteristic that after the official portion of the Russian-Kyrgyz military negotiations, Russian Federation Minister of Defense General of the Army Pavel Grachev directed the attention of his Kyrgyz colleagues to the fact that today “time is their common enemy”. That is, the longer the decision is delayed on joint utilization and financing of military facilities that are of mutual interest, the more irreversible the process of their breakup and the loss of highly-skilled cadres

becomes. It is this thought that was also dominant in the letter from the Bishkek helicopter regiment.

UKRAINE

Ministry of Defense Rebuts Grachev Claim to Major Black Sea Ships

93UM0672B Kiev NARODNA ARMIYA in Ukrainian
6 Jul 93 p 1

[Report from press service of Ministry of Defense of Ukraine: “The Position of the MO [Ministry of Defense] of Ukraine is Unchanged”]

[Text] Russian Federation Minister of Defense Pavel Grachev expressed his views regarding the problem of the Black Sea Fleet during a visit to the city of Leninsk (Republic of Kazakhstan). The fleet must be a unified, Russian-Ukrainian one, in his opinion, under unified command and at a unified base. P. Grachev moreover feels that some of the ships intended for patrol service and coastal defense could be under the Ukrainian ensign, but the ships that would be performing operational-strategic and operational-tactical tasks should be under the Flag of St. Andrew.

These statements by the RF Minister of Defense do not correspond to the Black Sea Fleet Treaty that was signed by the presidents of Ukraine and Russia in Moscow on June 17 of this year, as well as contradicting agreements reached earlier.

Minister of Defense of Ukraine Colonel-General Kostyantyn Morozov, commenting on the statements by P. Grachev at the request of journalists, emphasized that the stance of the Ministry of Defense of Ukraine has not changed. “We will remain faithful to the decisions of the presidents of Ukraine and Russia and our conceptual framework for defense,” indicated the minister, “and a unified fleet, which would drag us into combined armed forces, does not suit us. We will determine for ourselves the composition of our naval forces, with whom they will interact and under what ensign.”

Krivak III Frigate ‘Hetman Sahaydachnyy’ Commissioned, Described

93UM0672A Kiev NARODNA ARMIYA in Ukrainian
6 Jul 93 p 1

[Article by Lieutenant-Colonel Vasyl Bilan and Mykola Sulik: “The State Halo of Ukraine Over the ‘Hetman Sahaydachnyy’”]

[Text] There appeared in the fate of Ukraine at the beginning of the seventeenth century an exceptional individual among the educated people of the times, who was concerned with the development of schooling in Ukraine and defended the right of the Ukrainian people to their own culture, statehood and independence. That person was Petro Konashevych-Sahaydachnyy. He became hetman of Ukraine in 1606 and led the struggle

against the enemies of his native land and against encroachments, first and foremost by the Crimean Tatars and Turks. His heroic deeds are known to us all, and he is esteemed by the Ukrainian state and all the people of Ukraine.

The name of hetman of Ukraine Sahaydachnyy has been conferred on a new combat vessel that was built at the Zalyv Shipyard in Kerch. This is a second-class patrol craft, intended for the performance of tasks in contemporary naval battle. The patrol craft Hetman Sahaydachnyy has tactical performance characteristics of length 123.0 meters, width 14.5 meters, draft 5 meters, standard displacement 3,100 tons and loaded displacement 3,900 tons. The power of the two cruising turbines is 19,000 horsepower, and the two boost engines 55,000 horsepower. The speed is over 30 knots, and the range is 4,600 miles. The armaments include a single-barrel 100mm gun mount, two six-barrel 20mm gun mounts, an air-defense missile system, two four-tube torpedo launchers, mine armaments and a helicopter. The crew is 180.

The first combat vessel of our state also has modern radar and sonar sets and communications, firefighting and pumping gear. It is the eighth ship in this series. The Jane's reference classifies this as a Krivak III class frigate, while the domestic designation is the Nerey SKR [patrol ship] design 1135.1. The ship was laid down on 5 Oct 90, was launched on 29 Mar 92 and completed sea trials on 2 Apr of this year.

The ensign of the Ukrainian Navy was raised over the Hetman Sahaydachnyy patrol craft last week.

Present at the ensign-raising ceremony were Deputy Minister of Defense of Ukraine Colonel-General Ivan Bizhan, Ukrainian Navy Commander Vice-Admiral Borys Kozhyn, Chief of the Socio-Psychological Service of the Armed Forces of Ukraine Major-General Volodymyr Mulyava, Metropolitan of Kiev and all of Ukraine Filaret, Chairman of the Kerch Executive Committee Viktor Martynyuk, Chairman of Frankivskyy Rayon of the City of Lviv Vasyl Dzera, countrymen of Hetman Sahaydachnyy from Samborskyy Rayon of the Lviv region, Cossacks from the Zaporizhzhya host, artists, writers, workers and engineering and technical personnel from the yard.

The fateful moment had arrived. Vice-Admiral B. Kozhyn handed the naval ensign of Ukraine to the ship's commander, Captain 3rd Rank Volodymyr Katushenko. He kissed it and carried it past the ranks of the crew, holding it up to Metropolitan Filaret for blessing. Then Captain 3rd Rank Katushenko attached the ensign to the halyard of the stern flagstaff. The command sounded, and under the sounds of the national anthem of "Ukraine Has Still Not Died" the white and light-blue field was raised overhead, while colorful ensigns floated from the ensign staff and the jackstaff to the mast. This was the moment of the commissioning of the patrol craft into the force composition of the Ukrainian Navy.

The conclusion of the ceremony was a meeting. Colonel-General Ivan Bizhan emphasized in his speech that this is now the second year of the building of the independent Ukraine and its armed forces. And while the ground troops and the air forces (the airspace defense troops) are being built in accordance with the conceptual framework that was approved by the Supreme Soviet of Ukraine, matters are proceeding with much more difficulty with the building of the Ukrainian Navy; in accordance with the conceptual model that had been adopted, our naval forces should be created on the basis of the portion of the Black Sea Fleet of the former Union that is based in Ukraine. That is the legal stance of Ukraine. But despite the legislation of the Supreme Soviet of Ukraine pertaining to military formations, the creation of special state delegations and the holding of three meetings between the presidents of Ukraine and Russia were necessary to resolve the problems connected with the Black Sea Fleet and the building of our own navy.

Colonel-General Ivan Bizhan then pointed out that a certain portion of the admirals and officers of the Black Sea Fleet is violating the regulations, and has taken the route of a failure to fulfill the decisions of the presidents. This is a very dangerous path, and it cannot lead to the civilized and lawful resolution of matters regarding the Black Sea Fleet. The recent interview of the Russian minister of defense, who cast doubts on the decisions of the presidents of both countries, demonstrates the stance of that military figure. But today we are twice as pleased to stand on the deck of the first combat vessel Hetman Sahaydachnyy, alongside the patriots of the building of the Ukrainian Navy, and to extend to them the best wishes from Minister of Defense of Ukraine Colonel-General Kostyantyn Morozov. Our gratitude is sincere to those who have built this wonderful ship and are building new ones; great is the gratitude to all who are helping to build the armed forces and supporting the actions and measures of the Ministry of Defense of Ukraine.

Colonel-General Ivan Bizhan, addressing the personnel of the Ukrainian Navy, said that the Ukrainian ships will provide reliable protection for the maritime corridors of our Ukraine; confirmation of that was this ceremony and the profoundly symbolic name of Hetman Sahaydachnyy. He congratulated the crew of the ship and the naval personnel of Ukraine on their reinforcements.

Major-General Volodymyr Mulyava emphasized in his speech that a year ago we were standing at the beginning of the creation of the Ukrainian Navy, raising the state flag over the command-and-control ship Slavutych, and today we have the fourth vessel in the navy.

Major-General Volodymyr Mulyava, touching on the naval traditions of Ukraine, pointed out that they should be founded on examples of the sea cruises of our forefathers from Kievan Rus and the Zaporizhzhya Cossacks. He emphasized the interesting fact from a Jane's historical reference that the Russian fleet founded by Peter I is

older than the British fleet; the Russians, however, were fighting long before the creation of the Russian empire.

The director of the Zalyv yard, Mykola Volkov, talked about building the ships and the current state of the enterprise and the collective. Even though the yard is going through difficult times, the shipbuilders of Kerch can fulfill their orders for the building of ships. Confirmation of that is the creation of the combat vessel Hetman Sahaydachnyy.

All of those who spoke had heartfelt greetings for the personnel of the ship, and wished it *bon voyage*.

The sailors then showed their "home" to their guests.

There was a concert by artists from the cities of Zaporizhzhya and Lviv.

The patrol craft Hetman Sahaydachnyy is still at the shipyard. But the water will soon begin to seethe under the stern, and it will go out on an independent cruise into the Black Sea, to the Ukrainian naval base at the hero-city of Sevastopol.

Smooth sailing, Hetman Sahaydachnyy!

Air Forces Chief of Staff Argues for Combining Air Defense, Air Forces

93UM0681 Kiev GOLOS UKRAINY in Russian
8 Jul 93 p 6

[Article by Ukrainian Air Forces First Deputy Chief of Staff for Aviation Major-General Lyubomyr Petryv: "One Sky Over Both—Some Discussion of the Issue of Combining the Air Forces Formations and the PVO [Air Defense] Troops"]

[Text] *The battle of opinions continues on the question of combining the Air Forces formations and the PVO troops into a unified branch of the armed forces—the Air Forces (Airspace Defense Troops).*

All sorts of viewpoints on this issue have been and are being expressed, touching on various aspects of it—its expediency, defensive effectiveness, expense...

The effective start of this debate was the entry into force of the Law of Ukraine "The Armed Forces of Ukraine." It defined, as is well known, the overall structure for the army of our state, in accordance with which it is to be composed of three branches—Ground Troops (ground defense troops), Air Forces (Aerospace Defense Troops) and the Navy. That is, the creation and presence of unified troops combining the Air Forces and the PVO troops within the armed forces of our state was being proposed as early as the development of the draft of this law and its discussion and adoption by the Supreme Soviet of Ukraine. World experience in military organizational development and the causes of victories and defeats in local wars and military conflicts in recent decades were taken into account therein.

World practices in military organizational development, as confirmed by the combat experience of the postwar period, proves convincingly the necessity of concentrating command and control of aviation and ground-based PVO operations in the same hands, making it possible to achieve the greatest effectiveness in the application of those forces and assets.

A group of Israeli troops in the Arab-Israeli conflicts had unified control over aviation and PVO troops, and relied on a system of unified ground and airborne command posts, communications centers and a radar field created in the interests of this branch of the armed forces. This provided for a centralization of the supervision of combat operations by aviation and PVO, and made it possible to organize and implement their interaction as completely as possible in repelling an aerial incursion and destroying enemy aircraft, both in the air and at airfields. Air supremacy, without which any ground (combined-arms) operation was doomed to defeat, was ensured thereby.

The bitter lessons of failures forced the military command of Syria and other Near Eastern countries to combine and centralize the supervision of the Air Forces and PVO forces and assets. Attempts were made at a partial merging of the Air Forces and PVO troops in the former Union as well, based on an analysis of the experience of combat operations in the Near East. Those measures were simply not expedient, however, under the terms of the military doctrine that existed at the time, in accordance with the offensive nature of which it was assumed that combat operations would be conducted by and large outside the borders of the Union, and even the Warsaw Pact countries. A separate group of forces located on the enormous territory of the Union was required to cover its political and administrative centers, military-industrial areas and facilities of state administration. The PVO troops were created as an independent branch of the armed forces of the USSR for that purpose.

It is unwarranted for Ukraine to have Air Defense Troops as a separate branch, taking into account the defensive thrust of its military doctrine and the dimensions of its territory. Such countries as Poland, the Czech Republic, Slovakia, Hungary and Bulgaria have taken the path of combining their air forces and PVO troops since the dissolution of the Warsaw Pact, within the context of the military reforms they are pursuing. The appropriate measures are being taken to centralize the command and control of all PVO assets, as well as the forces of fighter aviation in the army of sovereign Belarus as well.

The solutions that have been adopted in the conceptual model of defense and the organizational development of the armed forces of Ukraine and codified in the Law "The Armed Forces of Ukraine" thus correspond, to the greatest extent, both to world experience and to the defensive interests of Ukraine.

The Air Forces and PVO troops are united by the common environment of their combat application—the airspace of Ukraine—which conditions the similarity of the tasks they perform in the interests of defense. They are thus armed with many identical combat assets and support systems, including, for example, fighter aircraft, command and control posts, means of detection of airborne targets and their identification, the means of depicting the airborne environment and the corresponding operational (combat) special-technical and rear support. The combination of those structures under unified command and control, along with an increase in combat effectiveness, would reduce to a considerable extent the expenditures for maintaining them. The allocation of additional material expenditures from the military budget would naturally be required during the time of creation of the unified structures, which is figured to last approximately three years.

The combination will provide a substantial economy of both material and financial resources, proceeding from the criteria of cost-effectiveness inherent in the evaluation of virtually all decisions of a military nature, as well as taking into account the considerable reductions in parallel and redundant command and control structures and support systems.

The organizational core for the creation of a unified branch of the armed forces is being formed in accordance with an order of the Minister of Defense of Ukraine, with the foundation of its work the coordination of positions—from the determination of the optimal structures for the new branch of the armed forces to the economic calculations of their expediency. Scientific groups from military institutes, centers of operational-strategic research, the TsNII [Central Scientific-Research Institute] of the Ministry of Defense of Ukraine and a number of highly competent staff officers from aviation and PVO, including military economists, are all involved in this work. Officers from both the PVO commands and the Air Forces of Ukraine come in or call every day with requests to include them in the working groups, or else simply to express a readiness to give us the necessary assistance.

Attempts to slow or block the fulfillment of the Law “The Armed Forces of Ukraine,” and the edicts of the President and the orders of the Minister of Defense that were issued in accordance with it, are also evident at the same time. They resort to various arguments therein: references to the lack of conformity of the phrasing or the absence of economic substantiation or a military doctrine, among other things. Some officials are organizing, under the guise of initiative from below by officers’ assemblies of the aviation command and PVO, and adopting appeals whose essence can be reduced to one thing—impeding the reformation of the armed forces of our state. I will not focus attention on the political aspects of this issue, but I am convinced that all of this is one with the attempts to impede our statehood and the independent course of Ukraine, and to slow the process of development of our own armed forces.

There is another side to these actions as well—the personal, job-related one. The unification assumes cut-backs in a whole series of parallel and redundant structures, which will lead to the release of a considerable number of personnel. Taking into account the fact that the selection and placement of cadres for the newly created command bodies will be conducted, and is already being conducted, on the basis of a comprehensive evaluation of the organizational and professional qualities of the candidates, as well as an assessment of their service activity in the positions they occupy and their personal attitude toward the development of its own armed forces by independent Ukraine, one may assume that some military leaders will end up unclaimed. Letters and appeals are thus appearing, and officers’ assemblies are being held. The arguments against the combination are all virtually one and the same—the collapse of the PVO system, a decline in combat readiness, the absence of the necessary calculations, the social interests of the servicemen. The opponents of this unification want to stall the reform of the Air Forces and PVO until the end of 1995, hoping by that time to create structures in a form whose merging is effectively impossible, at least for cost reasons.

The successful resolution of the tasks of combining the Air Forces and PVO troops is possible provided there is a profound understanding of the necessity of it, proceeding from the interests of our state and its defensive might. It is therefore essential, casting aside all parochial departmental or service ambitions, to focus our joint efforts on seeking out and devising optimal and effective ways of fulfilling the requirements of the Law “The Armed Forces of Ukraine.”

Agreement With Russia on Missile Maintenance Needed

93UM0691A Moscow KRASNAYA ZVEZDA in Russian
14 Jul 93 p 3

[Article by KRASNAYA ZVEZDA Correspondent Anatoliy Polyakov, Kiev, under the rubric: “Events and Commentary”: “Leonid Kravchuk Visited the 43rd Strategic Missile Army: Ukraine Needs an Agreement With Russia in Order to Maintain the Missile Complexes at Combat Readiness”]

[Text] Ukrainian President Leonid Kravchuk visited the 43rd Strategic Missile Army facilities at Vinnitsa and Khmelnytskyi that Ukraine has administratively subordinated to itself.

Both the President himself and the “official” television reporters that accompanied him attempted to convince television viewers on Saturday that there was complete order at the launchers and in the military collectives. However, in fact, judging by everything, this is far from so. Of the 64 plants that previously supplied various equipment to maintain the missile complexes at constant combat readiness, there are only nine in Ukraine. All ties have practically been broken with the rest. It’s clear that

it's hardly possible to ensure the completeness of the technological process and the timeliness of its conduct under these conditions.

Yes and because, as Leonid Kravchuk made comments at various stages of the visit of the missile positions, it was noted that his optimism was significantly diminished. The shortage of housing, salary problems, vague prospects as a result of reductions, and the main thing—disruption of the missile maintenance technological process—issues which apparently are too much even for the president.

So, it wasn't out of curiosity that Leonid Kravchuk listened to Army Commander Lieutenant-General Vladimir Mikhtyuk's report, descended into a missile silo, and met with the generals and officers. Having taken the strategic forces under their tutelage, the Ukrainian leaders have obviously taken on more than they can handle. And therefore Kravchuk stated the need for the most rapid conclusion of an agreement with Russian to ensure proper maintenance of the missile complexes.

BALTIC STATES

Debate on Lithuanian Command Restructuring

934K1798A Vilnius LIETUVOS RYTAS in Lithuanian
7 Jul 93 p 3

[Article by Ramune Sakalauskaitė: "The Debate Concerning the Head of the Lithuanian Army: Representatives of the Leftist Majority in the Seimas Want Greater Control Over the Minister of National Defense, While the Minister Says That a Democratic Control Mechanism is Vital"]

[Text] The draft of the provisional law on the command of the army of the Republic of Lithuania should be presented to the Seimas this week.

V. Petkevicius, deputy chairman of the National Security Committee of the Seimas and leader of the group that drafted the law, told LIETUVOS RYTAS that the draft sets forth the responsibilities of the Commander of the Army. He should be a professional officer appointed by the President on the recommendation of the Minister of National Defense. According to V. Petkevicius, the Minister will be barred from using the army to carry out the tasks set by any political group. When asked if there was precedent for the Minister trying to use the army to implement the demands of some political group, V. Petkevicius answered in the negative.

In the opinion of V. Petkevicius, the existing national defense command structure has not justified itself. He said that "there has been even more disorder, non-regulation activities, and exchanges of fire in our army than in that of the Soviets."

In speaking about cadre policy, V. Petkevicius observed that prewar Lithuania too had no military academies, and that therefore officers of the Czarist army had been

utilized. By way of accusation, the leadership of the Ministry of National Defense was reminded that the order of ex-Premier G. Vagnorius, which invited 1400 officers who had served in the Soviet Army to return to serve Lithuania, was not being carried out. Since, in the words of V. Petkevicius, it will be ten years before Lithuania will be able to train good officers, we will take advantage of the offer of the Russian Minister of Defense P. Grachev to train them in Russia.

To the question of whether there is a connection, and if so, of what kind, between the statements of several members of the Seimas (G. Gaska and G. Kirkilas) expressing lack of confidence in the Minister of National Defense, the haste with which the law on the army command was drafted, and the talk of the possible appointment of G. Kirkilas to the post of Minister of National Defense, V. Petkevicius answered: "Kirkilas is a fan of interviews, and therefore often talks too much. I am not in favor of hasty decisions. I see only one evil: For three years, A. Butkevicius was not under control. That is why we will now put him in his place."

When asked to elaborate on the charges made against Minister A. Butkevicius in the press, chairman of the Seimas National Security Committee G. Kirkilas responded that there had been no statements on that subject. Committee member K. Gaska, who has recently criticized the Minister of National Defense to LIETUVOS RYTAS, said that while he has nothing against the politician A. Butkevicius, but that he was unhappy about the depths to which army morale had fallen, the increase in gun battles and killings. Many complaints were expressed concerning the "militarized border," and the conferring of rank upon people who had not served in the army. The member of the Seimas asserted that the Minister of National Defense was suffering from a case of authoritarianism.

When asked who was the best candidate for the position of commander of the army, V. Petkevicius responded that there are three competent military specialists. All of them headed the military science departments of universities. (LIETUVOS RYTAS has received information that the likeliest candidates that meet the aforementioned criteria are N. Vidrinskas, A. Orenius, A. Vaitkaitis, A. Andriuskevicius, B. Vizbara, S. Knezys, and G. Tamulaitis.) When asked about the possibility of appointing a professional soldier who was born in Lithuania and who had served in a foreign army, as the Estonians had done, V. Petkevicius had an unequivocal answer: No.

Participating in several of the sessions in which the concept of national security and the army command law was discussed was a countryman from the USA, a colonel and Marine who retired last March 1, A. Garsys. A graduate of the U.S. War College, he took part in the Vietnam war, in operations in Korea and Japan, and worked at the Pentagon. During the Persian Gulf war, he was in charge of the supply center.

When asked by LIETUVOS RYTAS whether he approved of the institution of an army commander, A. Garsys responded that: "In principle, yes. In a country which has an army, there must be someone who will be responsible for its training, supplies, and budget. A minister who stands between the president and the commander of the army is a peculiar safety valve." So said the American colonel.

LIETUVOS RYTAS has learned that the preparation of the draft army command law and the talk of a possible change of defense minister has had repercussions in the ministry. Ministry officials who asked that their names not be used said that the LDDP [Lithuanian Democratic Labor Party] desire to choose an army commander as quickly as possible was an attempt, regardless of circumstances, to restrict the rights of the Minister.

Minister of National Defense A. Butkevicius told LIETUVOS RYTAS that the argument was not about the relationship of the President, the Minister of National Defense, the Chief of Staff, and the army commander. "The essence of the discussion is the principle of democratic control or, to put it another way, the guarantee of civilian control of the military in the defense system. Lithuania has suffered twice in this century by ignoring this principle: In 1926, a military putsch stopped the development of democracy, and in 1940 the commander of the army, having especially great powers, betrayed the country by making a political decision which forbade resistance to the enemy's army," said the Minister of National Defense.

In the opinion of A. Butkevicius, "many still do not understand the importance of democratic control of the army. That is why the efforts to tie the minister's hands by creating the institution of an army commander constitute backward logic. The whole purpose of democratic elections is to allow the political forces that win them, in forming a government, to appoint to the post of defense minister a person they have confidence in, and at the same time to create the conditions that will permit him to control the army, rather than the opposite, i.e., to seek an officer who can control the minister. In creating the Lithuanian defense system, we utilized the help of ex-Soviet army officers. At least five years will pass before the first new Lithuanian officers come of age. It is very difficult to have full confidence in officers trained in a foreign army, especially in times of complex political crisis. Germany found itself in a similar situation in 1953, when officers who had served Hitlerian Germany had to be used in creating the Bundeswehr. Only after an effective control mechanism was created, under which the defense minister was not only a member of the government, but also commander of the army, the only one with the power to command, was an effective system of defense created," said A. Butkevicius.

Progress, Development of Estonian Armed Forces

93UM0685A Moscow KRASNAYA ZVEZDA in Russian
13 Jul 93 p 2

[Article by Lieutenant-Colonel Anatoliy Dokuchayev of KRASNAYA ZVEZDA under the rubric "National Armies—A Commentator's View": "The Swedish Variation, But Without Guns"]

[Text] *"The new Estonian recruits were walking carelessly and out of step, with the black, white and blue flag of Estonia raised over their columns. They had incomplete uniforms—from American army coveralls to uniforms they had sewn themselves, but the main thing that was observed was that a military parade in honor of the national holiday—the Day of Independence of the Republic, first proclaimed on 24 Feb 1918—had taken place on Freedom Square in Tallinn."* That is roughly how the military parade that took place in the capital of the Estonian Republic on 24 Feb 92 was described by foreign journalists. On that day the new independent state that had appeared on the territory of the former USSR publicly announced that it was reconstructing its armed forces that had existed up until 1940. Estonia, by the way, had maintained a quite large army and navy for a small state before World War II, about 15,000 strong.

Tallinn has taken significant steps since that time in its military development. The Ministry of Defense and the Main Staff of the Defense Forces of Estonia are functioning, and cadre units are being formed. The prospects for the development of the armed forces, as well as the whole system of state defense, have been determined. They are codified, in particular, in the constitution and the law "The Defense Service." The essence of military doctrinal views is to ensure the security of the state first and foremost by all political means.

Government documents emphasize that Estonia will continue to strengthen ties with the Baltic states and the northern countries. They have made it their aim to obtain greater access to the capabilities of NATO through the collaboration council of that organization. One of the most important aspects of foreign policy has been declared to be providing for good relations with the sovereign states that arose with the collapse of the USSR.

The system of state defense of Estonia is headed by the President of the Republic. A State Defense Council created under him is a consultative body. The Defense Forces and all defense organizations are led in peacetime by the Commander of the Defense Forces, and in wartime by the Commander-in-Chief. These officials are named to their posts and are dismissed by the State Assembly by recommendation of the President of the Republic.

The protection of the independence and territorial integrity of the Estonian Republic is entrusted to the Defense Forces and the state organizations for defense (the most important of which is the *Kaitseliit*—the "Defense League").

It is expected that the Defense Forces will consist of three branches—the Ground Troops, Air Forces and Naval Forces.

The Ground Troops are in the formation stage. They will consist of three motorized subunits (motorized-infantry battalions) and number up to 2,100 men. The difficult economic conditions have left their mark; as of 1 Jul 93 there were thus just a little over 1,000 servicemen in the subunits. The chief difficulty in manpower acquisition is the shortage of barracks adapted for civilized habitation and the high prices for uniforms, electricity etc.

The organizational development of the air and naval forces of the Republic has effectively not begun. Deputy Minister of Defense of Estonia Hannes Valter, speaking at a seminar in Finland in October of last year, declared that the maintenance of those two branches of the armed forces will be economically impossible in the near future.

The organizational development of the Navy as part of the Defense Forces is moreover not felt to be expedient at all, according to the Department of Border Protection (DPO), subordinate to the Ministry of Internal Affairs of the Estonian Republic. DPO experts feel that Estonia cannot manage the maintenance of a Navy and a border-protection fleet. A choice must thus be made, and moreover in favor of the border-protection fleet, and the problem of naval development be removed.

Estonia in its current state, they say, requires a state organization that would fulfill the functions of state defense, monitoring and state enforcement on both territorial and internal waters at sea, border rivers and lakes, as well as in the economic zone. The state needs patrol craft, namely on the Narva River and Lake Peipus, where the use of such craft by Russian border guards is expected.

Estonia, taking into account the conditions and its requirements, should be limited to a patrol fleet, a portion of which would have fixed shore weaponry—small-caliber guns, mortars and depth charges—as well as some ASW missile systems. The presence of submarines, cruisers and other large naval vessels is superfluous. The patrol fleet should be ready to operate in minelaying and minesweeping operations and some underwater operations of a military nature.

Estonia should in that case have a Department of State and Border Protection—rather than a Department of Border Protection—that would guarantee the inviolability of the state borders and would have aircraft, a patrol fleet, radar stations, checkpoints and reserve forces on shore in a unified system.

The Ministry of Defense has made public the conceptual framework for total defense. Its ideas were borrowed from Sweden, where it is felt that an aggressor should be opposed by the entire population of the country, naturally relying on the national armed forces. The state structures, the Defense Forces, the people and the economy, according to statements of the military department, should

be ready to prevent an attack first and foremost. The aim of this total defense is to inflict the largest possible losses on an enemy in the event of an attack. The Defense Forces should be developed and psychological and practical training for the population should be implemented, they feel at the Ministry of Defense, for this to happen.

Total defense, in the evaluation of military experts, is hardly effective at the end of the 20th century, when the use of modern high-precision weaponry is possible. They have a high regard, at the same time, for the capabilities of the *Kaitseliit*—a defense organization that has a command, a definite structure and a command-and-control system. There are up to 8,000 people in the ranks of the *Kaitseliit* today. There were some 35,000 people in the Defense League before the war, including about 5,000 women. The *Kaitseliit druzhina* has been distinguished by the fact that it has repeatedly made attacks on the Russian military units stationed in the republic. They are guided in their activity by standard documents approved in the thirties, regulations and a daily routine.

The Estonian military are experiencing their greatest difficulties in acquiring arms and combat hardware. They are ready to procure them from Russia, and have agreements with weapons plants. The state structures of Russia, however, according to information that has leaked to the press, are refusing to issue the export licenses.

Weapons of Russian manufacture have at the same time been used by the Defense Forces of Estonia since their creation, by and large Kalashnikov automatic weapons acquired by various means. A large lot of automatic weapons manufactured in Romania was also procured through Latvia at a price of 115 dollars apiece. Estonia concluded the largest deal “at the governmental level” with Israel. Estonia, according to a report in the American press, has accepted an offer of credit of 50 million dollars to procure weapons in Israel. Tallinn should be obtaining light weapons—Uzi automatic weapons and Stinger anti-aircraft missiles.

The Defense Forces are not suffering any shortage of pistols. Some 15,000 Makarov pistols that the Izhevsk Weapons Plant had intended to ship to England were confiscated in Tallinn at the beginning of 1992. There is, however, a shortage of cartridges. And... there is not yet a single heavy artillery piece in the Defense Forces of Estonia.

The possibility of producing weapons at the Dvigatel Plant in Tallinn, which used to fill military orders, was being discussed at the end of 1992. They could set up the production of weapons, according to statements by representatives of the plant, but the leadership of the Ministry of Defense and the Defense Forces have taken the route of procuring arms abroad.

A system for manpower acquisition for the armed forces has just begun to be set up. The procedure for drafting into service and serving is regulated by the law “The Defense

Service" that was adopted on 27 Jan 92. All male citizens are obligated to serve in the army. They are obliged to take the oath. Those who cannot serve in the Defense Forces by virtue of their religious or ethical convictions perform labor service for up to 24 months. Young men of 19 to 28 years of age are drafted (the term is established by the government, and should not exceed 18 months). Volunteers may enter service at the age of 18. The officer corps and extended-service personnel are taken on under contract (agreement).

The servicemen are divided into enlisted men, NCOs and the officer corps. Officers are in turn divided by ranks into junior, senior and supreme. The officer ranks that were established by an edict of the president of Estonia on 28 Nov 38, as well as the NCO and enlisted ranks that were in existence up until 1940, have been restored.

The conceptual model for the officer corps has not yet been determined. There are two views on this issue—train the cadres at home, or send the young men to the educational institutions of foreign states. An agreement was reached with Finland in 1992 to send two groups of ten people, from among those who had served in the Soviet Army, there for training at the cadet school at Santahamina and at the military school at Lappeenranta. Close relations are being set up on this issue with Norway, where ten Estonian civilian employees of the Defense Forces have completed a one-week training course at military educational institutions.

Tallinn is oriented as a whole in its military organizational development toward the West. Those assigned to the posts of Minister of Defense and Commander of the Defense Forces testifies to this.

The military agency is headed by 60-year-old political-science professor Hain Rebas, who has spent his whole life in Western countries. He completed Göteborg University in 1967, and received the academic degree of doctor of philosophy that same year. Rebas has been a professor at the University of Christian Albrecht in the German city of Kiel since 1980. The Minister is a member of the Estonian Liberal Party in Sweden and the Party of National Independence of Estonia.

The State Assembly named the 61-year-old retired American Colonel Aleksandr Ejnselna, who took part in the Korean and Vietnam wars, as Commander of the Defense Forces.

The military development of Estonia, military experts feel, is being impeded by the hysteria raised in connection with the presence of Russian troops in the republic. Staffers at the Ministry of Defense devote a great deal of time to composing various forecasts of how the Russian Army will behave in this or that situation, rather than being occupied with concrete work to create a national army.

The Estonian military is counting on the "military real estate" of the former Soviet Army, and would also like to

receive some of the arms as "compensation for the confiscation of ammunition and weapons from the Estonian Army by the Red Army in 1940." Whatever the case may be, the Russian troops will eventually not remain on the territory of the Estonian Republic, and the nascent national army will have to assume responsibility for the security and independence of the state.

CAUCASIAN STATES

Georgian-Abkhazian Battles Around Sukhumi Detailed

93UM0692A Moscow KRSNAYA ZVEZDA in Russian
14 Jul 93 p 3

[Article by KRSNAYA ZVEZDA Correspondent Nikolay Astashkin, under the rubric: "Military Review": "Engagements at the Height of the Resort Season: During the First Half of July, Fierce Clashes Have Been Launched on the Approaches to Sukhumi"]

[Text] At first glance, it might seem that the Abkhazian side is once again attempting to seize its own capital from the front. But this is obviously not quite so. The attackers' concept of operations sooner consists of approaching right up to Sukhumi, having seized the populated area of Shroma.

They call Shroma Sukhumi's northern gates. As of today, as we know, those gates are open for the Abkhazians. But they aren't hurrying, as they say, to belabor the obvious. And this is why. In order to successfully conduct combat operations in the city, they have to be ready for them. That's the first thing. And, second of all, as a minimum they need to exceed the defenders by a factor of three and the Abkhazians don't have such forces.

Therefore, having taken Shroma, the attackers are certainly attempting to advance in the direction of the populated area of Gulripsh, thereby having finally isolated the capital, or toward the village of Babushar where the Georgian military airfield is located. In any event, the Abkhazians are attempting to resolve a dual task: to cut off the Georgian troops who are in Sukhumi and to come to the rescue of the amphibious assault force that landed west of Ochamchira.

According to the experts, this operation was well prepared. And then on the night of 2 July, having loaded vehicles and personnel on self-propelled barges, the assault put to sea from Gudauta, headed for the bridgehead near the populated area of Tamysh. In this location, the line of the eastern front closely approaches the coast. At approximately the same time, the Abkhazian armed formations that had isolated the Ochamchira-Tkvareli area breached the enemy defensive line near Tamysh and reached the coast, having provided a landing zone for the amphibious assault force.

However, the barges were detected and Georgian artillery opened fire on them with howitzers and Grad rocket

launchers. The ships, engaged and loaded with munitions, had to hurriedly put to sea. The amphibious assault force, having secured the bridgehead, remained practically without ammunition but still held on to a, although small, but strategically very important piece of land. To finally dispel enemy hopes of eliminating the breach that had been formed and to restore the land route for augmenting the Sukhumi formation with ammunition, personnel and food, the amphibious assault forces blew up the rail and highway bridges on the lines of communication that link Sukhumi with Georgia.

The battles for the bridgehead assumed a fierce nature. Near the populated area of Tsageri, the Georgian army began to assemble a large number of vehicles and artillery. We can understand these operations: you can't augment the dwindling resources of the formation that is cut off in Sukhumi very much by air. Therefore, you need to destroy the amphibious assault force and restore the land line of communication with Georgia. The amphibious assault force attempted to hold the bridgehead at any price but, alas, the forces were too unequal...

FROM THE SUMMARY OF JULY 7:

"The intensity of the combat operations near Sukhumi is increasing. Fierce engagements with enemy subunits have occurred on the left flank of the front. The Georgian troop formation that found itself surrounded has been destroyed.

"On the eastern front, a 13-kilometer-long corridor on the Sukhumi-Ochamchira Highway is being held by Abkhazian troops. Georgian military formations have retreated from their former positions. There are prisoners..."

However, let's return to the amphibious assault force. Judging by the contradictory mass media reports, on 10 July the Georgian army nevertheless managed to destroy it. More than 600 men died.

WHILE ANALYZING THE COURSE OF THE COMBAT OPERATIONS in Abkhazia, it is easy to note the increased, especially recently, tactical mastery of the Abkhazian commanders. Here all of the army structures have been created and they are functioning well.

I'll cite this example. In Abkhazia, there is already a small, but very maneuverable, navy. Grad [multiple] rocket launchers have been installed on speed boats. Almost every night, these speed boats shuttle to and fro along the coast in the area of Sukhumi, firing at enemy positions.

Reconnaissance is also proving it's worth. Especially revealing in this context is the operation, precise and lightning-fast, for the seizure of the Sukhumi GES [Hydroelectric Power Plant] which is located east of the populated area of Akhalsheni. It is there that an Abkhazian spetsnaz [special forces] company took prisoner approximately 30 Georgian servicemen headed by Major-General Zurab Mamulashvili.

So, Abkhazian subunits have reached the northern outskirts of Sukhumi. Although, of course, the situation here

does not lend itself to predictions as, by the way, much in this strange war at the height of the resort season does not lend itself to understanding.

How can you justify the methodical bombardments and artillery shellings of Novyy Afon—Abkhazia's historical and cultural center? This pearl of Abkhazia's Black Sea coast! And the thing that outrages us most of all is the fact that there aren't any Abkhazian troops at all in Novyy Afon, except the hospital that is located in the basement of the male monastery. Meanwhile there is great destruction from the massive Grad strikes. Specifically, the most ancient Christian structure—the Simon Kanonit [Father Simon] Cathedral—has suffered.

On the other hand, it is hard to understand or to justify the shellings of Sukhumi—a pretty resort city—by the Abkhazians... One of the most lasting impressions—is that this is a strange and incomprehensible war. The impression that in one family the brothers did not share something...

At the last minute.

GUDAUTA, 13 July. (ITAR-TASS Correspondent Zurab Argun). Today the Republic of Abkhazia Ministry of Defense reported that Abkhazian troops are continuing to advance along the Shroma—Sukhumi axis. Having established control over the surrounding heights, the Abkhazian armed forces have defeated a Georgian troop formation outside the village of Shroma. The Georgian troops, having suffered personnel and equipment losses, retreated. There are also losses in the Abkhazian army.

According to a report from that same source, engagements have also continued on a section of the strategic Sukhumi—Ochamchira Road to the east of Abkhazia. Abkhazian troops are using surprise attacks to prevent restoration of destroyed bridges on sections of the road. The road's carrying capacity is insignificant, asserts the Abkhazian Ministry of Defense. It is impossible to restore the electrical power lines in the next 10 days. The city of Sukhumi is without power.

CENTRAL ASIAN STATES

Kazakh Edict on Draft Appeal Board

93UM0740A Almaty KAZAKHSTANSKAYA PRAVDA
in Russian 12 Feb 93 p 1

[Edict by Kazakhstan Republic President N. Nazarbayev: "Kazakhstan Republic Presidential Edict Setting Up a Board To Examine Citizen Appeals in Connection with Performance of Service in Kazakhstan Republic Armed Forces"]

[Text] To avert instances of breaches of legality and the death and mutilation of servicemen while performing military service and to make an in-depth analysis and objective assessment of reasons and conditions contributing to extraordinary occurrences in the Kazakhstan Republic Armed Forces, I decree:

1. Form a Board with the following makeup:

Ye. A. Mustafetov, Kazakhstan Republic people's deputy, deputy chairman of Kazakhstan Republic Supreme Soviet National Security and Defense Committee (Board chairman, by agreement)

M. D. Shampiyev, chief of Kazakhstan Republic Ministry of Defense Directorate for Educational Work and Servicemen's Social-Legal Protection (Board deputy chairman)

Board members:

K. A. Abilgazin, deputy chief of Defense Division of the Apparatus of the Kazakhstan Republic President and Council of Ministers

B. S. Aytimova, Kazakhstan Republic people's deputy, chairman of Kazakhstan Republic Supreme Soviet Youth Affairs Committee (by agreement)

N. K. Akimbekov, deputy chief of Law-Protection Agencies Division of the Apparatus of the Kazakhstan Republic President and Council of Ministers

K. N. Alimkulov, first deputy chief, Citizens' Letters and Reception Division of the Apparatus of the Kazakhstan Republic President and Council of Ministers

I. F. Akulov, deputy commander for troop training, Kazakhstan Republic Border Guard Troops

Ye. K. Argymbayev, Kazakhstan Republic first deputy minister of health

A. B. Kazhenov, vice president, League of Jurists, Kazakhstan Republic first deputy chief state arbitrator

S. P. Klyunov, chief, Military Courts Administration, Kazakhstan Republic Ministry of Justice

M. V. Lebsak, Kazakhstan Republic deputy minister of press and mass information

S. G. Novoselova, Kazakhstan Republic people's deputy, member of Kazakhstan Republic Supreme Soviet Committee on National Security and Defense (by agreement)

N. Omarov, Kazakhstan Republic people's deputy, first secretary of Kazakhstan Republic Youth League Central Committee

V. I. Romanov, Kazakhstan Republic deputy minister for social protection of the population

I. N. Tasmagambetov, chairman, Kazakhstan Republic State Committee for Youth Affairs

A. A. Togusov, deputy commander for personnel, Internal Security Forces

Yu. A. Khitrin, Kazakhstan Republic military procurator

2. The Kazakhstan Republic Council of Ministers is to decide questions of financing, payment of travel and

other expenses of the Board, and allocation of technical equipment and office premises.

3. Establish that the Board takes a direct part in checking citizen appeals connected with the loss or mutilation of servicemen.

4. Kazakhstan Republic ministries and departments and heads of oblast and of Almaty and Leninskiy city administrations are to provide all possible help and assistance in the Board's work and promptly submit necessary information and materials in response to its requests.

5. Recommend that Kazakhstan Republic press and mass information agencies regularly cover Board activities; problems of strengthening legality, law and order, and discipline in Army collectives; and heroic-patriotic and mass defense work.

6. Make the Kazakhstan Republic Ministry of Defense responsible for registering and processing letters, complaints and petitions addressed to the Board and maintaining documentation.

7. Declare invalid Kazakh SSR Presidential Edict No 269 "On Measures for Examining Appeals in Connection with Performance of Military Service by Republic Citizens in the USSR Armed Forces" of 26 February 1991.

President, Republic of Kazakhstan

N. NAZARBAYEV

Almaty, 11 February 1993

New Kyrgyz Defense Chairman Affirms Cooperation with Russia

93UM0735B Moscow KRSNAYA ZVEZDA in Russian 30 Jul 93 p 1

[Article by KRSNAYA ZVEZDA Correspondent Albert Bogdanov: "Kyrgyzstan Has a New Military Leader, The Orientation Toward Russia—Is as Before"]

[Text] "We intend to resolve our military problems with Russia's assistance alone",—new Kyrgyzstan State Committee for Defense Affairs Chairman Major-General Myrzakan Subanov stated on 29 July at a briefing for journalists.

He stressed that the republic military-defense doctrine that has been developed but has still not been approved by parliament is oriented on close cooperation with the Russian Federation and the CIS countries.

Tajik Border Reinforced, Exchange of Fire Continues

*93UM0717A Moscow KRASNAYA ZVEZDA in Russian
23 Jul 93 pp 1,3*

[Article by KRASNAYA ZVEZDA Correspondent Aleksandr Pelts: "Tajikistan: The Border Is Being Reinforced: However, Armed Guerrillas and Afghan Mujaheddin Are Not Ceasing Attempts to Cross It"]

[Text] On the morning of 22 July, the operational situation on the Tajik-Afghan border continued to remain complicated, especially in the area of the 10th, 11th, and 5th Border Outposts.

At the last of them—5th Border Outpost—an attempt to cross the border from Afghanistan was undertaken by an armed group on the night of 22 July. It was stopped by the timely and decisive actions of the border guards. The group of guerrillas was dispersed and turned back after a short exchange of fire. None of the border guards were hurt.

At approximately 7 a.m. on 22 July, an armed group of up to 40 men attempted a crossing of the Pyandzh River in the area of Moscow Border Detachment's 11th Border Outpost. The violators, as our Correspondent Anatoliy Ladin reports, operated under the cover of mortar fire from Afghan territory which was conducted against the outpost. The border guards dispersed the guerrilla group with retaliatory mortar fire. The firing positions on the opposite bank were suppressed.

KRASNAYA ZVEZDA has already reported that Russian Federation Minister of Security Viktor Barannikov has arrived in Dushanbe. He visited the border's "hot-test spots" and, along with Tajikistan Parliament Head Imamali Rakhmonov, visited 12th Border Outpost.

Right now the Tajik-Afghan border is receiving significant reinforcement. And not only from Russia. The Tajikistan Parliament head announced that the emergency formation of a second Tajik Spetsnaz brigade is occurring under the Republic National Security Committee. It will begin to guard the border in the near future. Furthermore, they envision bringing Russian border outpost manning up to full strength using conscripts from Tajikistan.

The actions of the leaders of the neighboring independent states of this Central Asian Region have become more specific and adequate to the situation that is developing on the Tajik-Afghan border. For example, we know that the parliamentarians of Kazakhstan have repeatedly called for the immediate withdrawal of the national battalion that was sent to Tajikistan with a peacekeeping mission. However, now, as Kazakhstan National Security Committee Spokesman Karabi Mukanbeshkaliyev told an Interfax correspondent, the joint efforts of not only Russian and Tajikistan are needed. "In this situation, Kazakhstan must also not remain a casual observer", he stressed.

Simultaneously with the reinforcement of the border, actions are being stepped up against armed Islamic guerrilla formations in Gorno-Badakhshan Autonomous Oblast. In recent days the republic National Security Committee, jointly with MVD [Ministry of Internal Affairs] organs and Tajik Army subunits, have conducted a series of operations in the Garm group of areas. Weapons caches have been eliminated and the most aggressive groups that have been terrorizing the local population have been dispersed.

OTHER STATES, REPUBLICS

Update on Emergency Situation in North Ossetia

*93UM0722A Moscow KRASNAYA ZVEZDA in Russian
24 Jul 93 p 1*

[Article by KRASNAYA ZVEZDA Correspondent Vitaliy Strugovets: "People are Dying in Exchanges of Gun Fire as Before in the State of Emergency Area: According to Experts, the Situation Will Not Improve in the Near Future"]

[Text] 19 July. The Russian Federation MVD [Ministry of Internal Affairs] Internal Troops KPP [Entry Control Point] not far from the village of Oktyabrskoye, Prigorodnyy Rayon, North Ossetia, was fired on twice by rifles and grenade launchers. At 12:00 hours, kolkhoz workers who were working in the fields near the village of Sumsha were fired upon from Ingushetia. According to SO [North Ossetia] SSR MVD data, over 100 firing positions conducted fire that was dispersed along a nearly three kilometer front. The fire engagement was conducted for three hours. In the evening, an attack was conducted against a lime plant in the suburbs of Vladikavkaz. A North Ossetia militia agent and two guard administration employees were killed. One of the attackers—an Ingush by nationality—was detained. He was found to have 5.45 mm cartridges on his person.

20 July. Two corpses of Ossetians with a multitude of gunshot wounds were discovered near the village of Chernorechenskoye that is located not far from Ingushetia. A tractor that was transporting agricultural cargo was blown up on a camouflaged explosive device. Two servicemen were wounded as a result of shelling of an entry control point.

21 July. During the night, the tent garrison of Russian MVD internal troops was fired upon by automatic weapons and grenade launchers.

22 July. During the night, the tram tracks were blown up on a street in Vladikavkaz. The day before a similar act was prevented at the city's central market.

This is only the most significant information from the state of emergency area for the last four days. If we add to it the up to a dozen daily incidents of shelling of

servicemen and peaceful residents, it would be a nearly complete picture of today's situation in North Ossetia and Ingushetia.

What's being done to improve the situation? Russian Army and Russian Federation MVD internal troops servicemen have placed under guard practically all significant industrial and agricultural facilities on the territory of North Ossetia in order to reduce the number of armed clashes. At the same time, the active seizure of weapons and ammunition from the local population is being conducted.

State of Emergency Area Interim Administration Head Viktor Polyanichko regularly meets with the leaders of the two republics, elders, and local residents while attempting to resolve the issues of ceasing armed combat and rendering the maximum possible assistance to several thousand refugees. Incidentally, the distribution of

humanitarian assistance that was delivered at the initiative of the International Committee of the Red Cross recently began in Ingushetia and North Ossetia.

But, according to officials of the Russian leadership, the state of emergency area interim administration, and local information sources, the steps that have been taken will hardly improve the situation. The majority unambiguously advocate, now when the positions of both sides—Ingushetia and North Ossetia—are clearly defined, the need to resolve the conflict situation in the negotiating process with a definite mediation and, first of all, Russia's. We can consider the meeting of the elders of North Ossetia and Ingushetia that was planned in Terek to be a significant step in that direction.

But for now the session of the North Ossetia parliament that occurred on 23 July adopted a decision to request that the Russian Federation President continue the state of emergency regime in Mozdok Rayon and in parts of Prigorodnyy Rayon and in Vladikavkaz until 30 September 1993.

MILITARY CONFLICT, FOREIGN MILITARY AFFAIRS

UN Security Situation in Somalia Worsens

93UM0726B Moscow KURANTY in Russian 13 Jul 93
p 3

[Unattributed article: "UN Unable to Counter Partisans"]

[Text] The conflict in Somalia is turning out to be a drawn-out partisan war. According to ITAR-TASS, this is the opinion held by the military high command in charge of UN operations in Somalia (UNOSOM-2). In the last two weeks, fighters following General Mohamed Farah Aidede launched two surprise lightning strikes against troops of the multinational force in Mogadishu and against UNOSOM-2 headquarters, thus changing the nature of events transpiring in that African country. "Aidede initiated partisan warfare by employing surprise strike tactics against the multinational forces," states a UN confidential document which journalists were able to acquire. "We henceforth can expect ambushes, with small groups of 10 to 20 guerrillas attacking individual UNOSOM-2 subunits." In Mogadishu, snipers under the command of General Aidede wounded three French servicemen serving in the UN forces as they were guarding a ship being unloaded in the port. A complex of buildings occupied by UN mission personnel was subjected to mortar attack. The shelling left four Norwegian soldiers wounded. After the attack against the mission headquarters, the "Blue Helmets" were ordered to wear bulletproof vests at night in Mogadishu.

The UN Command is using U.S. warplanes to bomb Aidede's supporters' positions.

Border Guards Chief of Staff on Tajik-Afghan Border Fighting

93UM0726A Moscow FEDERATSIYA in Russian
No 81, 22 Jul 93 (Signed to press 21 Jul 93) p 1

[Article by Gennadiy Piskarev in the "Echo of an Event" column: "Posthumous Heroes"; first paragraph is FEDERATSIYA introduction]

[Text] "Russia's Border Guards are located outside the Motherland." This bitter truth, which goes far to explain the difficult situation facing our soldiers on the Tajik-Afghan border, were spoken by Major-General A. I. Tymko, Border Guards chief of Staff, in a briefing he delivered the day before yesterday.

The General, having returned from a visit to the site of the tragedy, which occurred on 13 July at Post 12 located at the small town of Shuraabad, informed the journalists gathered of the details of the fighting that lasted many hours, with words of high praise for the Border Guards, who repulsed an attack by more than 250 mujahedeen and pro-Islamic fighters firing mortars, automatic weapons, and artillery from five points simultaneously.

How could something such as the above come about? This is nothing else but the result of the Border Guards being located indeed "outside the Motherland," on a narrow strip of land, with Afghanistan lying on one side and Tajikistan, which is neither Russian nor Soviet, on the other. That is where things are going on, without restraint, certainly out of the hands of our military authorities. Naturally, this being the case, the mujahedeen and "democrats carrying the green flag" can easily "make it hot" for any of our troops.

"We must withdraw all our troops from the sovereign states," was a statement made by G. Popov also at a press conference, but not at the one I write about above. It was another one, held one day previously, but not in the Ministry of Security, of course. Could it be that Gavril Kharitonovich is right? I recall words spoken, not in the comfort of a Moscow office, but to the wounded in the border fighting and recuperating in a hospital. The speaker then was Lieutenant Oleg Malyshenko: "In saving the Tajiks, Russians are saving themselves. If the fundamentalists are not stopped on the approaches, it will not be long before it will become necessary to fight at the doorsteps of our very homes: Omsk, Astrakhan, Orenburg, and, possibly, around Sadovoye."

We cannot abandon the Tajik border in the same way as, say, we did in Azerbaijan. There will be no one to take over there. Tajik national security subunits are just now beginning to form and are in the embryonic stage. Later, when we do withdraw from the republic, we actually should set up posts and guard points on the border. But where is the money to come from, may I ask? The RF [Russian Federation] Ministry of Security has been raising its voice in loud protest for quite some time about the country's having essentially ceased funding for the refurbishing and maintenance of the present border.

In addition, the lack of a suitable military-political doctrine has not provided the Border Guards with the right to act jointly with the Army (military authorities were aware of imminent attack) to deliver a preemptive strike on the concentration of bandits. A "noteworthy" fact. The events which occurred were the cause of issuance of statements by the MB RF [Russian Federation Ministry of Security], Russian Federation Supreme Soviet, and even the President (actually, via his press secretary); and a note of protest was presented to Afghanistan by the Tajikistan Ministry of Foreign Affairs. Only our proud and haughty Ministry of Defense chose to remain silent.

As stated in the briefing, the Ministry of Security and the Border Guards commander have made decisions relative to strengthening the border control points and preventing the occurrence of tragedies such as those of Shuraabad. Incidentally, four men killed in the action have been honored by the award of Hero of Russia. Posthumously.

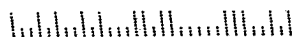
NTIS
ATTN PROCESS 103

5285 PORT ROYAL RD
SPRINGFIELD VA

2

22161

BULK RATE
U.S. POSTAGE
PAID
PERMIT NO. 352
MERRIFIELD, VA.



This is a U.S. Government publication. Its contents in no way represent the policies, views, or attitudes of the U.S. Government. Users of this publication may cite FBIS or JPRS provided they do so in a manner clearly identifying them as the secondary source.

Foreign Broadcast Information Service (FBIS) and Joint Publications Research Service (JPRS) publications contain political, military, economic, environmental, and sociological news, commentary, and other information, as well as scientific and technical data and reports. All information has been obtained from foreign radio and television broadcasts, news agency transmissions, newspapers, books, and periodicals. Items generally are processed from the first or best available sources. It should not be inferred that they have been disseminated only in the medium, in the language, or to the area indicated. Items from foreign language sources are translated; those from English-language sources are transcribed. Except for excluding certain diacritics, FBIS renders personal names and place-names in accordance with the romanization systems approved for U.S. Government publications by the U.S. Board of Geographic Names.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by FBIS/JPRS. Processing indicators such as [Text] or [Excerpts] in the first line of each item indicate how the information was processed from the original. Unfamiliar names rendered phonetically are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear from the original source but have been supplied as appropriate to the context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by the source. Passages in boldface or italics are as published.

SUBSCRIPTION/PROCUREMENT INFORMATION

The FBIS DAILY REPORT contains current news and information and is published Monday through Friday in eight volumes: China, East Europe, Central Eurasia, East Asia, Near East & South Asia, Sub-Saharan Africa, Latin America, and West Europe. Supplements to the DAILY REPORTs may also be available periodically and will be distributed to regular DAILY REPORT subscribers. JPRS publications, which include approximately 50 regional, worldwide, and topical reports, generally contain less time-sensitive information and are published periodically.

Current DAILY REPORTs and JPRS publications are listed in *Government Reports Announcements* issued semimonthly by the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161 and the *Monthly Catalog of U.S. Government Publications* issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

The public may subscribe to either hardcover or microfiche versions of the DAILY REPORTs and JPRS publications through NTIS at the above address or by calling (703) 487-4630. Subscription rates will be

provided by NTIS upon request. Subscriptions are available outside the United States from NTIS or appointed foreign dealers. New subscribers should expect a 30-day delay in receipt of the first issue.

U.S. Government offices may obtain subscriptions to the DAILY REPORTs or JPRS publications (hardcover or microfiche) at no charge through their sponsoring organizations. For additional information or assistance, call FBIS, (202) 338-6735, or write to P.O. Box 2604, Washington, D.C. 20013. Department of Defense consumers are required to submit requests through appropriate command validation channels to DIA, RTS-2C, Washington, D.C. 20301. (Telephone: (202) 373-3771, Autovon: 243-3771.)

Back issues or single copies of the DAILY REPORTs and JPRS publications are not available. Both the DAILY REPORTs and the JPRS publications are on file for public reference at the Library of Congress and at many Federal Depository Libraries. Reference copies may also be seen at many public and university libraries throughout the United States.